INSANITY AND ALLIED NEUROSES

SAVAGE AND GOODALL

CLINICAL MANUALS

FOR

PRACTITIONERS AND STUDENTS

OF MEDICINE

PLATE I.—THE BRAIN IN A CASE OF ADVANCED GENERAL PARALYSIS OF THE INSANE.

A, Right hemisphere, showing thickened pia arachnoid, erosions and wasting of convolutions; B, granular aspect of 4th ventricle, showing increased vascularity and ependymal surface covered with granulations.

INSANITY AND ALLIED NEUROSES

A PRACTICAL AND CLINICAL MANUAL

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WITH SIX COLOURED PLATES AND
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PREFACE TO FOURTH EDITION.

This manual has been revised throughout, and special attention has been given to the sections which deal with the pathology of the various diseases of which it treats. Many new illustrations have also been added, including six coloured plates.

In bringing the manual up to date I have enjoyed the co-operation of Dr. Goodall, from whose original work and wide reading the volume has profited greatly.

I have also to thank Dr. Mott for his kindly and efficient help in producing the highly satisfactory illustrations of the normal and morbid states of the nervous tissues. I am indebted to Dr. Bolton, of Rainhill Asylum, Liverpool, for permission to use certain of his photographs, and to Dr. Watson, Pathologist of Rainhill Asylum, for his microscopical illustrations. I must also make acknowledgment to Dr. Caldecott, of the Earlswood Asylum, who, in addition to help in other forms, has supplied photographs for the illustrations of a cretin in Chapter XXIII.

I believe that all that is essential for the student of mental pathology, and for the general practitioner who needs aid and direction, will be found in this amended volume.

G. H. S.

July, 1907.

PREFACE TO FIRST EDITION.

To those who have been engaged for years in the culture of any branch of science, and in the imparting of its *data* to others, there naturally comes a time when the facts observed, and the apparent relations between them, seem to demand some permanent registration. One has, as it were, to take stock of one's facts and see what has been learnt. I have for some time felt that my period of observation without registration must terminate, and that I owe it to my position as physician to a large hospital to give the younger members of my profession the results of my more than twelve years' experience in Bethlem.

In this book I shall describe insanity and trace its life history. I shall explain the legal relationships of the insane, and make plain the duties of the physician who has to be responsible for their safety and welfare. Although the greater portion of this work will be the record of my own personal experience, I shall have also to draw upon the experience of others when treating of idiocy, epilepsy, and chronic mental disorders, because in Bethlem such cases are not treated.

I must thank many who, in one way or another, have helped me in my work; specially, W. Haigh, Esq., who has not only corrected my proofs, but has by criticism aided me much in the legal chapters; and Dr. F. Beach, who has contributed to the chapter on idiocy.

G. H. S.

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INSANITY AND ALLIED NEUROSES.

CHAPTER I.

INSANITY FROM LEGAL AND MEDICAL STANDPOINTS.

Introductory—Insanity may depend upon general bodily disease—Eccentricity—Genius—Crime—Borderland between sanity and insanity.

What is Meant by Insanity?—This, naturally, is the first question we have to consider. I shall try to show clearly throughout this work that no standard of sanity as fixed by nature can under any circumstances be considered definitely to exist. "Sanity" and "insanity," as recognised by the doctor, and, in fact, by the general public, must be but terms of convenience. No person is perfectly sane in all his mental faculties, any more than he is perfectly healthy in body.

There are flaws on the physiological side, and defects on the mental. Insanity has to be looked upon in two different aspects. From the physician's side it has to be considered as a disease of the brain or a disorder of the mind, quite apart from any consideration of responsibility whatever. From the other side, that is, as seen by ordinary members of society, insanity is scarcely recognised until it interferes, in one way or another, with the laws that bind society together. Later on I shall trace the origin of some of the most marked forms

of insanity, and I shall be able to point out that the earliest symptoms of unsoundness of mind can often be traced far back into a period in the lives of the patients when they were apparently fulfilling every social and moral duty. Even at this time, from the medical point of view, these people were suffering from unsoundness of mind, which would in the end destroy both body and mind. It will be my duty chiefly to consider insanity from the physician's point of view, and in doing so we shall see that a man's sanity is to be gauged purely by what is his own normal standard.

A man, in fact, must be considered as sane or insane in relation to himself. The old and oft-repeated statement that insanity is a perversion of the *ego* is absolutely true. Sanity and insanity, then, are to be measured by differences or changes of habit, taste, and disposition in the individual, as well as by other symptoms of change in the nervous centres. The difference will necessarily be seen to be not only one of degree, but also of time, so that a man, being sane, may, without warning, become insane within a short period. I shall take it for granted that insanity depends upon change in the nervous structures of the body; but by no means shall I restrict the causation of insanity to changes in the brain alone. Many cases will have to be considered in which the insanity depends upon general bodily disorder. The more I see of insanity, the more convinced I am that the consideration of mental disorder can only be fairly approached by the complete consideration of general physiology, *i.e.* the development, growth, and decay of the body in all its parts. No development or growth can go on without the action of the nervous system. Insanity may depend upon vices of development,

vices of growth, or premature degeneration, local or general; but it may depend also upon the bad ministration of the servants of the brain. As an old writer has said, "The brain, like a gentleman, has many servants, but withal may be badly served." Insanity may seem to depend upon physical changes which, at first sight, seem to have little or nothing to do with the brain. Thus it does not need a physician's experience to know how dependent one is for energy and power of work on good digestion. The relation which exists between states of dyspepsia and feelings of melancholy must be fully recognised. For though some geniuses have been dyspeptic, the world's work is best done by people who eat well and breathe freely.

Insanity, as I have said, is a relative term, and it is necessary that I should point out the other nervous conditions to which it is allied. Many people are considered only **eccentric**; and from the abnormally emotional life often led by men of genius, genius is looked for as the necessary accompaniment of eccentricity; at least, to be eccentric suggests an idea of genius. Eccentric people may belong to two classes, at least, (i.) those who have some insane inheritance (those, in fact, who are on the borderland of insanity), but who do not become insane; (ii.) those who show eccentricity in passing from sanity into some form of mental disorder, and may again pass through this disturbed mental borderland on recovery. Eccentricity may be developed *de novo* just as, I believe, certain forms of mental perversion may be developed. I think injustice has been done to man's power of development and of self-government by those who would look to the parent for every quality, good or bad, possessed by the offspring. The human being comes into the world with powers of development

of a most extraordinary kind, and there is hardly any limit to the capacity for accommodation to the environment but that of simple physical possibility. It is not to be wondered at if persons who are surrounded by unnatural circumstances and conditions, should develop abnormal properties. Thus, the person who, being somewhat niggardly, has begun by collecting trifles, such as pins, sardine boxes, horseshoes, and the like, may end by shutting himself up in an attic, refusing to wear clothes, and being unwilling even to wash, for fear of the cost of soap and water. Such cases are looked upon as eccentric, and I might fill a book by simply narrating instances of eccentricity as seen outside asylums. Most persons have tricks both of body and mind; they have their own idiosyncrasies of temperament, as we should say. If these are not duly restrained and checked, a habit is in process of development which may influence for evil the whole life of the individual.

Eccentricity may appear in any one of the various departments of mental life; so that one person may be suspicious, another may be jealous, another subtle and untruthful, while a fourth may be violent, passionate, and revengeful. All these are properties of the sound mind, if in due subordination; but if left unrestrained, or stimulated in growth by foolish encouragement, their tendency is to make men, in the first place, eccentric, and afterwards possibly to form the groundwork of an attack of insanity. Eccentricity is rarely developed before the period of advanced middle life: or, at least, is not recognised as such. The peculiarities in younger persons which are allied to eccentricity are considered to belong to hysteria or moral insanity, and I am inclined to think they are justly so

classed. These latter may be, and for the most part are, cases of an undeveloped disorder, which, later in life, is almost certain to assume an acute form, and, as such, many of them undoubtedly bear a blood relationship to the more marked forms of mental unsoundness. In former days a greater number of eccentric people were at large than at present, and many of these were, without doubt, like the weak-minded persons who are now condemned to the county asylums. To conclude this short notice of eccentricity, I would remark that, once fairly developed, it is generally incurable.

I have incidentally referred to **genius** in its connection with eccentricity and insanity. I am hardly prepared to give a definition of genius, though I would call attention to the fact that it is usually associated either with some special faculty for the dramatic portrayal of abnormal emotion; or is altogether dependent upon a simple over-development of an individual faculty of mind. The first, in a sense, we may call the genius of art; the latter, that of science. With regard to genius, I must say that it is an exception to find patients with unusual capacity of any kind among the inmates of an asylum. There may be found "specialists" of every character and degree, that is, men with persistence in limited pursuits; thus, I have known a patient in Bethlem who devoted years to the delicate polishing of pebbles; and another whose one object in life was to clean windows, while the speciality of a third was still more limited, for his sole aim was to keep bright the brass knobs of the water taps. Therefore, from the point of view of the superintendent of an asylum for acute cases of mental disorder, I can definitely say that it is rare to meet with extraordinary ability among

the insane. On the other hand, I must admit that in my experience of people out of asylums, who have been credited with genius, I have met with many who possessed marked mental peculiarities and eccentricities. It appears as if there were for each ordinary person an average quantity of nervous power and energy to be expended, and if a larger amount than usual is got rid of in one direction, there naturally results a deficiency in some other quarter; in fact, there is loss of balance. "Want of balance" fairly describes the mental condition of many a genius. How often, for example, has one met with a man of letters, full of taste and of energy, but who objected strongly to be controlled in his lower or more animal tastes! Thus it happens that so many men of genius have given themselves liberty, if not license.

Another way in which to look upon the relationship between genius and insanity, is to consider **precocity**. The old proverb, "A man at five, a fool at fifteen," very well illustrates what is frequently seen. Precocious children are commonly the offspring of insane or nervous parents. I had in Bethlem one female patient, whose two children, both under six years of age, were playing classical music in public. I have seen other children who developed almost in infancy strong animal passions. When considering idiocy, I shall have to discuss more in detail the disorders incidental to infancy and childhood, and therefore I now leave this part of the question of precocity, merely stating that, in my experience, the children of the insane may develop certain aptitudes or passions at the expense of the rest of their nervous development.

Special aptitudes, as for music, sometimes for art and mathematics, and a wonderfully retentive

memory may be present. It is rare to meet with all these talents developed at one time, but it is common to see a child with one or more of these who is totally wanting in moral sense. I shall, under the head of "moral insanity," and when considering "hereditary neurosis," give details of such cases.

One naturally passes from these considerations to **the relationships of crime to mental unsoundness.** I shall have to devote a chapter more especially and fully to this matter. But here I speak only of the borderland of insanity, which has been so carefully explored by Dr. Maudsley. There can be no doubt in the minds of those who see much of the criminal classes and of those who see much of the insane classes, that there is something in common between them. I must not be misunderstood in saying this, for there is an immense difference between some insane persons and some criminals; but as the savage and the statesman have connecting links between them, so among criminals and lunatics there are many grades which approach one another very closely. To begin with, the physical aspect of a chronic lunatic resembles very closely that of a confirmed criminal, and the mental degeneration of man leaves his features so changed and debased that he resembles the man who, from vice of birth or faulty surroundings, has never developed the higher social qualities. As Dr. Maudsley has well pointed out, though there is a borderland, there is no boundary stone; and there are cases in which exist some insanity and much crime, and others with much insanity and little crime. And at present this borderland is the one on which most forensic battles have to be fought. Though from theoretical points of view it may appear that any one with criminal tendencies

must be looked upon as insane (as one, in fact, who cannot be calculated upon, and whose actions are not governed and controlled as are those of the ordinary social unit), yet society, as represented by lawyer, judge, and jury, will continue to hold the balance in its own hands, and punish those who may, after all, be of unsound mind, the expert's opinion notwithstanding.

The relationships of insanity to crime are further evidenced by the fact that so many criminals develop other nervous disorders while under punishment for their offences. Epilepsy is much more common among criminals than among the sane. Sense perversions are much more common among them also. They appear wanting in the highest of all mental power, the power of controlling, or organising and applying, what faculties they possess. Their nervous systems are unstable and easily break down. These facts, important as they are to the student of mental physiology, can at present hardly be applied in the treatment of the criminal. Though the relationship must be fully recognised, it would be no more fair to say that crime and insanity are directly connected (that is, necessarily connected), than it would be fair to say that genius and insanity were similarly allied.

The test of family relationship must, after all, be connection by paternity. If a large proportion of criminals can be found having insane parents or insane children, it must be admitted that there is some closer connection between insanity and crime than mere accident. And if we can trace the development of criminal instincts to insane parentage, if we can prove the direct transmission of criminal instincts from father to son, we shall have done much to show that there are true links between intellectual and moral perversion.

In speaking of the inheritance of neurosis, I shall have to give instances in which some members of a family have been insane, while others have been "ne'er-do-weels," and perhaps one member has become criminal. In the borderland now under consideration there are other tracts to be explored, and I shall have to point out that hysteria, hypochondriasis, epilepsy, somnambulism, and other allied states, are all at least more nearly related to mental unsoundness than to sanity. I am anxious not to be supposed to be of the opinion that every perversion of nervous action, every unusual display of intellectual or moral force, is to be regarded as a case requiring the interposition of the physician whose chief care has been for the insane. But till insanity is looked upon as a phase of bodily disorder, till it is seen to be related to all the other disorders of the nervous centres, it will not be justly appreciated and properly treated. Insanity in its various forms, although associated with nervous disorders and change in the nervous tissues, cannot yet be localised.

To the student of insanity it will be a surprise to find how often there is but little to be seen *post-mortem* in the nervous system of the insane, whether to the naked eye or microscopically. It must, however, be remembered that anything like an exhaustive microscopic examination covering the various regions is very rarely made, on account of the labour and time involved. Where such can be carried out with modern methods for the demonstration of nerve-cell and fibre and connective tissue changes, first impressions as to the absence of lesions will often be dispelled. But although these methods have brought to light changes where none were apparent before their introduction, we are unable

to correlate the latter with the symptoms of insanity. Such correlation of tissue-changes and symptoms as is possible in diseases of other viscera the physiology of which, by reason of their comparative simplicity of structure and obvious limitation of purpose, is largely understood, is at present impossible in disease of the organ of mind, because of the scantiness of our knowledge of the normal modes of action of this exceedingly complicated structure.

CHAPTER II.

CLASSIFICATION.

Different methods of classification—Classifications of the Medico-Psychological Association and of the London College of Physicians—Author's classification.

We may classify by the *causes*, as in epileptic, puerperal, or alcoholic insanity; or by the *forms* which the symptoms assume, as mania, melancholia, or dementia.

We may divide cases according to whether the senses are at fault, or the emotions disordered, or the reasoning faculty, the will, or the moral sense is chiefly perverted. We may arrange according as to whether the disorder arises in connection with development, growth, maturity, or decay, or whether it arises primarily in brain disease or is secondary to other bodily illness. Insanities may be acute or chronic, recurrent or circular; they may be curable or incurable. I subjoin the classification drawn up by the Medico-Psychological Association, the classification which is accepted by the London College of Physicians, and finally, the classification which for convenience I shall follow in this manual.

CLASSIFICATION OF THE MEDICO-PSYCHOLOGICAL ASSOCIATION.

FORMS OF INSANITY.

(*As it appears at the time of record.*)

1. Congenital or infantile mental deficiency (idiocy or imbecility) occurring as early in life as it can be observed.
   (1.) Intellectual (*a*) without epilepsy,
   (*b*) with epilepsy.
   (2.) Moral.

2.—Insanity arising later in life.

(1.) Insanity with epilepsy.
(2.) General paralysis of the insane.
(3.) Insanity with the grosser brain lesions.
(4.) Acute delirium (acute delirious mania).
(5.) Confusional insanity.
(6.) Stupor.
(7.) Primary dementia.
(8.) Mania. (*a*) Recent.
(*b*) Chronic.
(*c*) Recurrent.
(9.) Melancholia. (*a*) Recent.
(*b*) Chronic.
(*c*) Recurrent.
(10.) Alternating insanity.
(11.) Delusional insanity. (*a*) Systematised.
(*b*) Non-systematised.
(12.) Volitional insanity. (*a*) Impulse.
(*b*) Obsession.
(*c*) Doubt.
(13.) Moral insanity.
(14.) Dementia. (*a*) Secondary or terminal.
(*b*) Senile.

NOMENCLATURE OF THE ROYAL COLLEGE OF PHYSICIANS.

MENTAL DISEASES.

I.—*Errors of Development.*

Idiocy (including congenital and infantile imbecility).

II.—*Disorders of Function.*

Mania (acute, recurrent, or chronic).

(*a*) Hysterical.
(*b*) Puerperal.*
(*c*) Epileptic.
(*d*) Alcoholic.
(*e*) Senile.
(*f*) From other acute or chronic disease, or from injury.
(*g*) Delirious.

Melancholia (acute, recurrent, or chronic).

(*a*) Agitated.
(*b*) Stuporous.

* The term puerperal is intended to include pregnancy, parturition, and lactation.

(*c*) Hypochondriacal.
(*d*) Puerperal.
(*e*) Climacteric.
(*f*) Senile.
(*g*) From other acute or chronic disease, or from injury.

Circular insanity. Alternating insanity.
Mental stupor.
(*a*) Anergic.
(*b*) Delusional.

Delusional insanity (acute or chronic). Synonyms: intellectual monomania, insanity of systematised delusions, paranoia.
Moral insanity.
Impulsive insanity.
Obsessive insanity.

III.—*Result of Infective, Toxic, and other General Conditions.*

Post-febrile insanity.
Acute delirium. Synonym: acute delirious mania.
Confusional insanity.
Alcoholic insanity (acute or chronic).
Insanity of myxœdema.

Cretinism.

Insanity of diabetes.
„ „ chorea.
„ „ Graves' disease.
„ „ pellagra.
„ „ haschisch.
„ „ lead (or other poisons).

IV.—*Degenerations.*

General paralysis of the insane. Synonym: general paresis.

Dementia (primary or secondary).
(*a*) Developmental.
(*b*) Senile.
(*c*) Epileptic.
(*d*) Syphilitic.
(*e*) From organic brain disease. Synonym: organic dementia.
(*f*) From other acute or chronic disease, or from injury.

I purpose making use of the following groups in this manual:

1. Hysteria—Mania.
2. Hypochondriasis—Melancholia—Stupor.
3. Primary dementia—General and partial.
4. Secondary dementia—(States of mental weakness).
5. Chronic mania and melancholia—Recurrent insanity.
6. Senile dementia.
7. Delusional insanity—Hallucinations.
8. Moral insanity.
9. General paralysis of the insane.
10. Insanity associated with the grosser lesions of the nervous system.
11. Insanity with childbirth—Post-connubial, of pregnancy, puerperal, of lactation.
12. Epileptic insanity.
13. Insanity associated with visceral disease and disorders o metabolism.
14. Insanity due to toxic influences—Post-febrile disorders Acute delirious mania—Acute confusional insanity——Alcohol—Morphia, etc.
15. Volitional insanity—Impulse, obsession, doubt.
16. Idiocy and imbecility.

Any classification of insanity must necessarily be provisional. At all events, till our knowledge of mind in health and disease is greatly extended, I shall divide the cases we are to consider into what I have found to be convenient groups; if not classes or orders in the kingdom of disease, they represent sufficiently definite collections of symptoms to bear general descriptions. They are, in fact, definite enough to enable the student of medicine to classify any cases which come under his care according to them. The classification will in many particulars be a cross classification, so that certain cases will appear under different headings. The time may come when a classification of mental disorders may be made according to the pathological changes which take place in the nerve centres.

In my present classification, I shall feel bound to recognise the fact that certain cases of insanity are due to disease of the brain of a very definite

and observable character, and that certain other cases of insanity depend for their origin on the existence of some bodily disorder.

Unlike most ordinary diseases, an attack of insanity does not either pass away entirely, or kill a patient, but in a majority of cases leaves him more or less mentally crippled. The physician has often recognised the fact that a man is not the same after having a serious attack of illness. A man differs in one or more particulars after he has passed through small-pox, fever, rheumatism, or even gout. It has been said that a bee-master, before he had an attack of small-pox, was able to handle these stinging insects with impunity, but after his recovery he was no longer able to follow his occupation, the bees ceasing to like him, and not even tolerating his presence. I have seen several patients whose temper and dispositions have been markedly affected by an acute illness such as rheumatic fever, so that a woman who had been, previously to acute rheumatism, quiet, industrious, domesticated, and a good wife, became, after recovery, selfish, indolent, and home-neglecting. These are accidents when considered in relationship to general bodily diseases, but they are peculiarly common when associated with insanity. The large residuum of insanity which fills our county asylums consists to a great extent of the patients who, having had one or more attacks of insanity, have neither died nor recovered. There is, in fact, a very strong feeling prevalent that a patient who has once had an attack of insanity is never cured under any circumstances. This I shall oppose entirely; but I acknowledge that a very considerable proportion are maimed in one way or another by an attack of insanity. It is only what might be expected, for the more delicate an instrument, the greater

its liability to injury by rough handling or rapidly changing conditions. The eye, itself but a window of the mind, is recognised to be an organ which suffers permanently from slight inflammatory or other disorders, which did not appear at first to be of much importance. Is it therefore surprising that the still more highly developed and organised human brain should show signs of the storms that sweep over it?

I have been in the habit, in clinical teaching, of dividing all my patients into the curable and the incurable, but I have always added that I intended in this division to separate those patients suffering from general paralysis of the insane, from those suffering from every other form of nervous disorder.

Natural classification.—A natural classification is that already mentioned, and which is based upon the epochal manifestation of mental disease.

First in such a table one has the *insanity of development*, as seen in the arrest and perversion of mind, ending almost invariably in idiocy, or in imbecility. Attacks of nervous disorder affecting the unstable developing nervous tissues of childhood cause, as may be expected, rapid and permanent degeneration. It is, as it were, the destruction of a house of cards.

Next is the *insanity of adolescence*, and here we meet with the same forms of mental disturbance, but with a much more marked character than when seen among children. The forces are greater, perhaps rather more stable, but yet eminently mobile. The prognosis in such cases will be better than among children, and less satisfactory than among the mature.

The third division is formed by the *period of maturity*, and here we meet with the greatest number of insane patients. Insanity seems pecu-

liar from this characteristic, that at the period of fullest vitality mental disorder is most common.

It has to be recognised that in this we often see the full blowing of the morbid flower of insane inheritance. We also see that the fine brain organism breaks down when the greatest stress is thrown upon it, and that the period of maturity is that of work, ambition, disappointment, and of the uncurbed exercise of the largest number of faculties of body and mind. At the close of the period of full maturity comes the period of change, the so-called climacteric or, in woman, menopause. Some think no such period occurs to men. But I am inclined, from my experience of the insane, to consider that (though, perhaps, later) a similar period exists, and that, in fact, a man does not pass from maturity into old age without a period of mobility or instability, during which he is assuming habits which, if duly developed, are conservators of energy.

The last division, according to age, is the *period of decay;* and I shall point out that there are many varieties of nervous death, some being rapidly destructive, and others leading slowly to euthanasia.

I think it necessary to make some divisions, according to the parts of the mind that seem to be affected; and I shall point out that whereas in one case loss of energy is seen by the will-less condition of the patient, in another perversion of moral nature may be so great as to justify the use of the term moral insanity; while in yet another the disorder mainly affects the judgment.

The grouping of mental disorders to be followed in this manual, being provisional, and in no way pretending to be final, will be found more useful than elaborate new plans which would entail labour to the student to master, and which would in the end have to be thrown aside.

CHAPTER III.

CAUSES OF INSANITY: PREDISPOSING CAUSES.

Classification of causes. GENERAL PREDISPOSING CAUSES: Effect of race—education—sex—age—neurotic predisposition—occupation. SPECIAL OR INDIVIDUAL PREDISPOSING CAUSES: Heredity—constitution and temperament.

IN this and the two following chapters I shall show the many contributing conditions which may aid in the development of insanity. Insanity rarely springs into existence; it begins to grow long before it is seen.

When speaking of "cause," I use the term in the widest sense for convenience, and not pretending to exact expression. The sun, the rain, the dissolving soil, the very earth-cast of the worm, contribute to the growth of the grass, and in a sense may be said to cause the grass to grow; so it is with insanity and the many and complex relations of life. I shall consider all the assisting conditions in the environment as causes, when they can be shown probably to have influenced the result.

Any division which one makes must be artificial, and suited for the present time and our limited knowledge. Both *psychical* and *physical*, *predisposing* and *exciting*, are but convenient expressions of the immediate conditions connected with the disorder; the effect of a mental shock may be similar in kind and in degree to that of a physical one, and the body may suffer in the

same way from each. A fright or a blow may produce pallor, faintness, and sickness; and a graver shock or blow may produce insensibility, or mental disorder of more active kinds. Thus, any division depending on terms like *mental* and *physical* must be understood to be used for convenience, and not as representing any definite idea of physiology or psychology.

In any classification we must refer to the time-honoured division into *predisposing* and *exciting* causes. The predisposing causes again must be divided into *general* and *special*. Here we may often be able to place two distinct events or conditions which have precipitated the catastrophe. Or one physical cause may act in several directions. Thus, a drunken man loses his situation, and is brought face to face with want; drink has been damaging the brain, and the shock of the loss of his situation is just sufficient to upset the already unstable balance. Delirium tremens is often known to follow a physical shock or injury, and in the same way I have known a sudden mental shock to produce insanity, resembling, in many particulars, delirium tremens. Thus, I saw a lady suffering from acute mania of a restless, noisy variety, the patient being emotional, and at night seeing vermin about her, and strange faces on the walls of her bedroom. She had been a secret drinker, and having been left a good deal alone of an evening by her husband, had had ample opportunities for indulging her evil habit. She had been, by a kindly motive, induced to go out one evening, but had failed to get home in consequence of her drunken condition; she had been cared for in a police cell, and the next morning was fined five shillings. The loss of position incurred by this accident upset her balance, and delirium tremens followed.

When considering the relations of drink to insanity in detail, I shall have to speak more fully of its double action, or I might go farther and say its multiple action, for it affects the mind, body, and estate in a most complex way. But, whether we consider causation from the side of predisposing and exciting, or from the bodily or the mental side, when we come to life studies we shall very rarely find one single predisposing and one single exciting cause. Generally, when persons become insane they do not jump suddenly from sanity to insanity; the usual process, as a rule, is a morbid development. The bodily and the mental relations become changed step by step, and the final outbreak of insanity, which causes the friends to seclude the patient, is but the last step in the downward course. So much is this the case, that a very large number of patients are sent to asylums with the earliest recognised symptoms of their disease given as the cause of the affection. By this means many so-called drink-produced cases are wrongly accused of intemperance. Sleeplessness may lead to the use of stimulants, and these in their turn upset the digestive functions, and the patient, thus weakened and exhausted, loses all self-control and becomes mad.

As I have already said, predisposing causes are to be divided into the *general* and *special*, or *individual*. Writers have considered almost every one of the varying conditions of civilised life as possible predisposing causes to insanity; in fact, any one of the many-sided parts of the character of man, when over-developed, may predispose to a loss of mental balance; and doubtless it is of the utmost importance, in studying the genesis of insanity, to consider with care anything that may assist in the fuller understanding of mental action.

GENERAL PREDISPOSING CAUSES.

Effect of race.—It has been supposed that insanity occurs more among some races than among others, or, at least, that some forms of insanity are more likely to appear among, say, the more excitable races than among the phlegmatic. But evidence is wanting to show that peculiarities of race alone are sufficient to cause marked differences in the insanities. For though excitement and excess may tell disastrously upon the unexcitable, I am inclined to think that direct nervous stimulation is, to the more excitable southerners, like their native sun, a natural and constant part of themselves. An amount of excitement or excess which might disturb an Englishman would little affect the Italian or Spaniard. Statistics clearly show that insanity may occur at least as frequently among the slow-living (I had almost said torpid) races of the north, as among the excitable southerners. In Scandinavia, causes such as solitude act as disastrously as indolence and excitement among other races.

The infrequency of general paralysis of the insane among the Irish and other Celtic races has been commented upon. But although we find that in the highlands of Scotland and in the rural parts of Ireland and Wales, general paralysis of the insane is almost unknown, yet as soon as the same people migrate to cities they seem to enjoy no immunity from this disease, so that there can be no question of purity of race alone giving immunity.

It used to be said in America that the same immunity was enjoyed by the negroes in slavery; but whatever the case may have been in the days of servitude, I have the best authority for stating that general paralysis of the insane occurs now,

not only among negroes, but among negresses also. I know of no special race-immunity, either from ordinary insanity, or from general paralysis. Once I had an opportunity of studying the condition of the Indians of North Canada in the Hudson's Bay Territory, from the notes made during five years by Mr. Walton Haydon, and I found that insanity, associated both with excitement and depression, occurs among the natives. Few opportunities, however, are given for the study of such patients, for among uncivilised races, to be mad is sufficient reason to be killed. It might be supposed that some races, like the French branch of the Latin race, were specially predisposed, by reason of the constancy with which political agitations disturb the whole country; but it is noteworthy that political and social convulsions do not greatly increase the numbers of the insane, and that, in fact, the chief part which such differences play is rather to colour or give shape to the disorder than to cause any marked increase. It was shown, during the Franco-German war, that large numbers of people on the borderland of insanity seemed rather to be prevented from passing into the land of madness by the mental excitement and occupation afforded by those stirring times. In fact, it did what one is constantly striving in vain to do, it gave occupation to the thoughts of the nervous, thus taking them away from the insane contemplation of self.

Education has to be considered among the predisposing causes. And here it will be found that insanity occurs amongst the most highly educated, as well as among those without any learning at all. Does education produce insanity? Is the present age of compulsory education one in which insanity is manufactured by overwork? These are two of the most important questions which present

themselves for solution at the present day. In my opinion, true education, that is, the true development of mind and body, is the best preventive of insanity. Over-education, or bad education, consists really in the development of one side of the human being at the expense or to the neglect of the other; and the fault which one constantly sees is in educating the child along the lines to which its tastes lead it without paying sufficient attention to correlated functions. The precociously artistic child is encouraged to dabble in colours, and the musician of five years old is placed in the hands of a master. This is bad education, and is likely to do harm. I should not, however, think it well to follow the advice of a popular writer who suggested that it would be advantageous if all men were taught to be ambidextrous. For although it is well to be able to use both hands, it is better that one should be more facile and ready, rather than that both should be indifferently handy. I have rarely seen insanity produced by anything that could be fairly called over-education, if hygienic rules were followed, and if patients were not already strongly predisposed to insanity by inheritance. The weak-mindedness produced by over-special education falls most markedly upon those who have insane inheritance. As has already been stated, precocity is not unusual in such persons, and the precocious child is one often having intellectually weak parents, who are likely to mismanage it in all directions. A forcing process goes on which ends in premature decay or in unnatural production. The education which I have seen do most harm is that which may be called education out of harmony with the surroundings of the individual. Thus, the promising artisan who wins some prize, or who is taken up by some well-meaning patron,

and who is educated in the book-learning of the ancients, or in the science of the moderns, runs a great danger. I had constant examples in Bethlem of young men who, having left the plough for the desk, had found, after years of struggle, that their path was barred by social or other hindrances, and disappointment, worry, and the solitude of a great city had produced insanity of an incurable type. The question of the number of hours of daily work that are to be considered sufficient, beyond which over-work comes in, is a question which must depend upon the individual; and in dealing with the question of education as a cause of insanity, I insist chiefly on the disturbance produced by education bad in quality or amount.

A strong healthy girl of a nervous family is encouraged to read for examination, and having distinguished herself, is, perhaps, sent to some fashionable forcing house, where useless book learning is crammed into her. She is exposed, like the Strasburg geese, to stuffing of mental food in over-heated rooms, and disorder of her functions results. Or if a similarly promising girl is allowed to educate herself at home, the danger of solitary work and want of social friction may be seen in conceit developing into insanity. It is in this manner that the results of defective education become often apparent in the case of the weaker sex now-a-days.

Finally, with regard to the question of education, most writers who begin by stating that there is a great increase in insanity, end by saying that the increase is due to the increase of education, and that insanity grows directly as the education of the people increases. But this, again, to my mind, needs considerable qualification. Now-a-days education has spread far and wide; and

although it may be theoretically for the benefit of mankind that the larger proportion should read and write, and have some knowledge of many things, yet it leads men to over-estimate their mental acquirements as compared with their bodily ability; so that the fact that a very large number of clerks become insane is rather an evidence that there are many more clerks living struggling existences, than that the study required to qualify them for their occupation has caused their mental disturbance. With the increase of education are produced over-ambition, feverish pursuit of gain and pleasure, aggregation in towns, celibacy with vice of one kind and another, and the development of religious indifference and general unbelief, associated with neglect of general hygienic conditions.

Sex.—Both sexes are liable to insanity, and suffer from acute attacks of mania, melancholia, or dementia, almost in equal proportions. But some forms of insanity, such as general paralysis of the insane, are at present much more common among men than among women. Whatever the cause of this may be, I have no doubt of the fact that insanity of this particular type is greatly on the increase both among men and women. In my own recollection of the insane, which embraces a period of over thirty years, I have noticed a marked increase in the number of female general paralytics seen in the middle classes. As regards the relative proportion of insane among men and women, the Commissioners' returns for 1906 showed: private patients, 4,355 men, against 5,447 women; pauper patients, 51,216 men, against 60,040 women. The ratio per 10,000 of the population was, for private males, 2.61; for private females, 3.05; pauper males, 30.69; pauper females, 33.62.

In most asylums there are more female than male admissions, and certainly in Bethlem Hospital we always had an excess of female patients, and this excess was regular and constant. But one must remember that females exceed males in the population, and whilst an absolutely greater number of females is admitted, the Commissioners' returns show that the ratio per 10,000 of the population of female admissions is less than the corresponding male ratio, and especially less if first admissions only are considered.

The higher death-rate amongst male patients also goes to explain the relative preponderance of females in asylums.

Sex makes a difference as to the causation of the insanity. As I shall have to point out, one of the most dangerous periods in the lives of nervous persons is the period of puberty. This period is dangerous to men, but it is much more so to women. Everyone is familiar with the hysterical girl; but few appreciate at first, at its full value, the danger of the onset of desire as it occurs in lads. The nervously predisposed youth might well be represented by the artist as a frail, bloodless body being struggled for by the spirits of Eros and Psyche. Women are more often upset by sexual troubles, and the periods of pregnancy, parturition, and lactation add gravely to the danger which they run of becoming insane. It must be fully recognised that many of the sexual perversions which occur among the insane are attributable to their insanity, and are not to be looked upon as the causes of the disordered condition.

That there is an excess of female lunatics might be expected from the greater nervous instability of women, from the larger number, proportionately, of women living at any one time in England, to the greater tendency of insanity to recur in

women, and to the greater tendency of mothers to transmit insanity to their female children, who again are the more numerous.

In connection with sex one must consider *marriage*. Of the insane we find among men most single men, but among women more married than single women. And here we must remember women marry earlier than men, and have extra causes of disturbance, to which I have already referred. Widows are much more liable to break down than widowers; and this is comparatively easily explained. In modern society marriage is still looked upon as the proper social end of a girl's life: she is educated for and led to expect that household duties will be hers, and, as a rule, she is hardly prepared for any independent struggle with the world; and if for a time she has gone out as governess or shop-assistant, it has been only with the idea that this employment would be temporary. When she is married all this is given up, her accomplishments are neglected, and her family is made the centre of her life. If accident or disease deprive her of her husband, she has a hard struggle for her bread; worries, anxieties, loss of social position, and deprivation of sexual gratification, all assisting, are causes sufficient to upset the nervous balance of a large number of women; so many, in fact, that I often feel I might describe a form of mental disorder under the name of "widows' disease."

Age.—I believe that occasionally children unsound in mind come into the world. It may, however, seem an exaggeration to speak of the mind of a newly-born animal; but I have had opportunities of seeing children whose mothers have been in Bethlem during the later months of pregnancy suffering from insanity, and always such children have, almost from the hour of birth, been restless,

intractable, sleepless, and unnatural little creatures.

Various forms of brain defect or disease causing idiocy may occur from birth, and will be considered with idiocy later. As a rule, all nervous disturbance of a severe kind in early infancy leaves the mind a wreck. I have seen acute mania and acute melancholia in very young children; dementia, apart from idiocy, can scarcely be recognised in children.

I have known a girl of eleven years of age who persistently refused food, and had done this so long that her whole weight was only thirty-four and a half pounds; she had the marked skin changes seen with starvation. Kind but firm treatment, with good feeding, restored this child. Dr. Heron, under whose care she was, says he has traced insanity in one parent's family.

The next period of special interest is the age of *puberty*, in which we meet with various forms of insanity, all of which have a great tendency to terminate in weak-mindedness, if they last for any considerable period, or if they are severe in degree (*see* p. 78). They are chiefly characterised by emotional disturbance, by exalted ideas of power and worth, or by the converse feelings of unworthiness. They may be associated with hypochondriacal symptoms of one kind or another, the patient frequently referring his complaints to the head or brain, and assuring you that his or her brain is either dried up or swollen. At this period moral perversions are very common, especially if there is strong inheritance of insanity; lying, thieving, lust, cruelty, and destructiveness being not uncommon.

A lad of fifteen, whose mother was many years ago in Bethlem, and whose uncle died of insanity, went on well enough till he was set to work in an

office; he then grew restless, and, though able, never stopped long in a place. He was plausible and cunning, and thus easily got fresh situations. It was found, after a time, that he was not so good at his work, and further investigation brought many of his faults to light; he had lied persistently, he had destroyed property, and valuables which had passed through his hands were missing or injured, and yet none of these things could be brought home to him. Such a case will probably become a chronic lunatic or a criminal. This is the age when insanity, associated with phthisis pulmonalis, is not uncommon.

The period of *full maturity and development*, during which the larger proportion of nervous disorders occurs, next occupies our consideration.

Mania, melancholia, and, occasionally, primary dementia are met with, chiefly at maturity, there being endless varieties of each. This age is the one in which premature decay, as seen in general paralysis, makes itself recognised. When reviewing in detail the causation of general paralysis of the insane, I shall have to point out the fact that the age of this disease is the age of full vitality. It appears as if among the strongest, most thoughtful, most energetic and useful of men, this disease has its richest harvest. I shall point out that there are many other diseases of the body which have mental sides (if I may use the term); thus, with gout and with degenerations of various organs, we may have associated melancholia, hypochondriasis, or symptoms of dementia. Later in life there is a period of several years in which melancholia, especially of the hypochondriacal type, occurs. In women this is recognised as "climacteric insanity," and I shall give the same name to it whether occurring in men or women (*see* pp. 78 and 201). The chief characteristics of

the disease are feelings of bodily misery, sleeplessness, together with feelings of spiritual unworthiness. This is the age of "unpardonable sin." Such cases frequently recover if they are judiciously treated for a sufficiently long period. For, like most other climacteric conditions, it is often years before the fresh balance is re-established. The period of the climacteric, already a period of degeneration, is succeeded by a still more fully marked decadence. Life is drawing to a close, and the weight of years is telling, not only in feebleness of body, in impaired digestion, but in loss of control of the faculties, or marked pain in their action, so that painful thought or brain-ache occurs, which is but another way of describing melancholia. The most common result of mental degeneration is a return to childishness, and this childishness may be approached somewhat suddenly or more gradually, so that the old person may pass from a period of health and strength through a time which is like the period of adolescence, and is associated with a similar instability and tendency to emotional disturbance. Second youth may be passionate or hysterical. The mental edifice, tottering to its fall, may be still further damaged by some other physical accident. Thus, apoplexy may complete the intellectual ruin begun by age, the change depending on a further extension of arterial disease, the brain acting feebly, and being but poorly nourished. With the reduced supply and assimilation there are fewer and fewer exhibitions of mind, till, the supply being finally cut off, the end is reached (*see* further, p. 81).

Occupation.—Under the head of education I spoke of *occupation* and *social position* in their relationship to the causation of insanity. And I pointed out that just as many educated as ignorant

were found to suffer mentally. Neither riches nor poverty prevent persons becoming deranged. The millionaire and the pauper may alike be mad. Though, as I shall show, riches do not prevent the malady, yet the care and treatment is naturally affected by the possession of wealth. The consequence is that there is an appearance of excess of insanity among the lower classes, simply because the bread-winner, being incapacitated from work, must necessarily be removed from his home, and his absence deprives his family of his earnings, but if kept at home one or more would have to look after him instead of adding to the common store. The liberty of the subject depends, after all, to a certain extent, upon the length of the purse. The weak-minded rich man can be kept among his friends by the aid of servants and attendants, but the poor man is sent to the workhouse infirmary or to the asylum.

Certain occupations seem more favourable to the development of mental disorders than others, and my impression is that certain *precarious occupations* have played an important part in this sense. This has been true of agricultural depression, in considering which question it will be well, however, to guard against some possible sources of error. But the fact most certainly is, that a larger proportion of small farmers have been admitted to Bethlem during periods of such depression. One source of fallacy may be that owing to money losses they could not be paid for by their friends in private asylums, and therefore more of them were sent as free patients. But notwithstanding this possibility of error, the precarious conditions of the farmer's life seem eminently those likely to cause a mental break-down. Insanity is comparatively rarely produced by a single shock or emotion. Just as the stone is worn by

the constant dropping, so the mind is upset by the recurrences of worry; and worry, not work, is the cause of the break-down of farmers. No amount of foresight or industry will save them from the effects of disastrous years. And it seems that the inability to stave off misfortune has a particularly depressing effect.

There are many other occupations which are sufficiently exhausting, or subject to recurring annoyances. Speculative businesses belong to this class. And in referring to general paralysis I shall have to speak of the mode of life followed by speculators as one tending, in my belief, to the development of this form of mental disease.

In Bethlem there is a very large number of governesses. But here, again, the fact must be taken into consideration that, just as the younger men, who are struggling from the lower ranks of the artisan into the higher social ranks, strive first to become clerks, so girls of the same station endeavour to become governesses. And if any special ability, such particularly as that for music, is exhibited, they are forced and cultivated along that special line at the expense of their general health and mental balance. To my mind, the governess's life is a very good example of the predisposing causes of insanity, as seen in action. Thus we see a girl of nervous temperament, with high powers of receptivity, anxious, self-sacrificing, and with emotional and artistic feeling, thoroughly good and hard-working. Showing more aptitude than her sisters for music, she is encouraged to spend many hours a day in practising the piano (I have known such a one practise eight or ten hours a day regularly, besides occupying her time with other matters); and after years of home practice she is taught, at considerable sacrifice to her parents, by some leading

master, and she overstrains herself in her endeavour to make the most of the advantages which she was constantly told she enjoyed. In this way her young growing life suffers; dyspepsia, constipation, and sleeplessness come early; uneasiness occurs at the top of the head; menstrual irregularity shows itself, at times there being profuse exhausting menorrhagia, at others, painful scanty flow.

In this unstable condition the poor girl obtains some engagement, or, more disastrously, I would say, a situation. Here she is better fed, and has regular hours; but, on the other hand, there are no means of drawing herself out of herself. The child, or children, are more or less trying to her temper, and she, the enthusiast, is hourly annoyed by the utter lack of interest exhibited by her pupils. She often has no companions of her own age and station, the heads of the household look down upon her as belonging to an inferior grade, and her own education and position prevent her from associating with the domestic servants. In this manner she becomes only one degree better than the prisoner in solitary confinement. She is thrown into a purely subjective life, building castles in the air, dreaming what would be, or might have been, if only intellect, the crown of man, had its proper sway, till at last the castles in the air become to her no longer fairy ideas, but actual realities. She thinks herself wedded to some wealthy nobleman; or, on the other hand, she may develop ideas of suspicion, and fancy that every person about her is wishing to take from her her only possession, her virtue. It is also worthy of consideration that many who lead the life of governesses have been compelled to do so by some domestic misfortune which has suddenly obliged them

to turn their education to account, as being the only sure source of livelihood enabling them to preserve the vestiges of their former social position. In such cases as these, in addition to the perplexities and mortifications of their unaccustomed life of dependence, there would be a previously established predisposing cause.

From the above we can see how a governess's occupation may act as an important factor in the development of insanity. Beggars are said to be remarkably free from insanity. That may be true in England, but on the Continent it seems to me that insanity creates many successful mendicants. Prostitutes are said also to be specially predisposed to insanity, and I am not surprised that it should be so. In early life (for very commonly they commence their vicious career as mere children, and have, like the habitual drunkard, in many cases a directly vicious inheritance) they are driven not only to gross sexual excess, but with it they take to drink, irregularity of hours, and are exposed to all sorts of risks of bodily disease, general and local. Thus a young unstable woman, indulging in excess and exposed to disease, breaks down.

Reference has been made to the *influence of confinement* on persons (more especially of solitary confinement) in the production of insanity. But at present I need only repeat the statement that the criminal classes contain a large number of people with insane inheritance, who are from birth predisposed to insanity, persons who are already on the confines of insanity, and who merely require some slight alteration in their health and surroundings to push them over the border-line. Solitary confinement, the enforcement of a subjective life, may thus lead to insanity. The captive, having nothing to occupy his attention, is

pretty sure to develop castles in the air of one kind or another.

Among predisposing causes I would notice *the time of the year*, the climate, and the like. In Bethlem I used to notice we always received the largest numbers of applications for the admission of acute cases in the summer; and next in frequency, early autumn seems the period most associated with these disturbances. Although many superintendents have been at considerable pains to trace relationships between meteorological changes and the occurrence of attacks of insanity, and of epileptic fits, at present no distinct or direct connection has been made clear. I should certainly not agree with some writers in saying that as a rule attacks of mania occur in winter, but would rather say they are more common in summer and autumn. A question that is still repeated is, Has the moon really anything to do with insanity? And some of our asylum attendants still believe in the connection. My opinion is, that many lunatics will remain quiet in bed during darkness, but will be mischievous and refractory if there is light enough.

SPECIAL OR INDIVIDUAL PREDISPOSING CAUSES.

Heredity constitutes the chief individual predisposing cause. The child carries on from his parents special qualities and dispositions, and one recognises in all races of animals, and even in the vegetable kingdom, special qualities derivable from the male, and others from the female. Hitherto, with all our observations and statistics, we have been unable to foretell what would be either the sex or the quality of the human offspring. We do not even know whether, in fact,

a child who resembles in appearance his father is more or less likely to resemble him in mind. But we do know that qualities of mind and body are transmissible, for without this there would be an end to all training and development. If the child did not inherit the result of all that had gone before, with additional power of development on his own part, all social growth would be rendered impossible. The torch of civilisation is handed from father to son, and as with the idiosyncrasies of mind, so the very body itself exhibits well-defined marks of its parentage.

Dr. Bucknill has thrown doubts upon the importance of inheritance, and has said, with a certain amount of appearance of reason, that if insanity be so easily transmitted from parent to child, how is it that so many in a family escape? For instance, in a case in which the plea ol insanity is made use of to save a man from the gallows, the criminal being the only one among six children whose sanity is called in question? How is it that we so seldom find the criminal to have insane brothers and sisters, and that the expert is often driven to seek for insanity among the uncles or cousins, and considers himself specially fortunate if he finds an insane mother or father? This is true enough, yet no one is surprised to hear that in a family of six or eight, only one has some physical peculiarity, or some mannerism or trick which has been noted in the father's or mother's family for generations. We have to remember that the child is not only the offspring of his father and his mother, but is the last of a long procession, and that he is the representative of their many peculiarities and aptitudes, and it would be impossible for him to have them all, as some would be contradictories.

A good example may be seen in the presence

of an extra finger or thumb. This peculiarity may run through several generations. But it only selects a few individuals. Yet, surely, no one would doubt the importance of its recurrence as evidence of family peculiarity. Other peculiarities, bodily and mental, are strikingly inherited, some of them clinging to the male side, and others to the female side. Thus hæmophilia will pass to male after male in a long series, missing the females altogether. This is a good example, also, of another peculiarity of inheritance, which is seen among the insane, the transmission of a tendency without its development in the person transmitting. Thus, in hæmophilia, a father may beget a daughter who has no tendency to bleeding, but she has sons who are bleeders. The insane parent may beget a child without any insanity, but the next generation may develop it to its full extent.

In general, I should say there is one chief individual predisposing cause, namely, neurotic predisposition. This statement may be said to be like Molière's explanation of the effect of opium: "Its effects were soporific." I only give a term and no explanation; but I would insist on my belief that only a certain number of persons are so constituted that they can become insane.

Anyone may have a brain tumour, or may die from abscess of the brain; probably most men may develop general paralysis of the insane, though few can become "insane." Those who become insane may inherit the predisposition directly; and it is remarkable to see how very precise the similarities of the nervous derangements in parents and children may be. Thus, the hypochondriacal parent may have a hypochondriacal son. I have known one member after another of a family commit suicide, though under dissimilar conditions

of climate and surroundings, and I have even known the members of one family to possess a predilection for the mode of destroying themselves. I have, again, known mother and daughter break down under the same conditions, as, for example, after childbirth, and seen several instances in which the family inheritance was a tendency to pass into a state of weak-mindedness with melancholy at a certain period of life. It may be said that in these cases there was a great probability of the relations dwelling on the fate of their friends, and begetting the evil thought by brooding over it; but this connotes a disposition of subjectivity which is in itself abnormal. In considering, however, the predisposing causation of insanity by inheritance, I would insist, most of all, on direct inheritance of insanity.

The danger is greater the nearer the begetting of the child is to the insanity. Thus one girl of weak mind was begotten on the very day her father had his first convulsive fit, the earliest symptom of general paralysis of the insane; here no doubt was possible as to the time of conception, from the wife's account. Again, a patient was admitted to Bethlem whose father was discharged from an asylum on leave, partially recovered, nine months before her birth; and I was consulted in another case in which the patient was begotten by a father who was on leave from an asylum. That direct inheritance is of the utmost importance I have seen evidenced by the fact that a patient in Bethlem Hospital, suffering from insanity during pregnancy, bore a child who was insane from birth. I shall have to refer to the history of this child later, and need say no more at present than that it is but one of several children, born of insane mothers, who have been perverse from the very womb. The inheritance, then,

has a time-factor, the danger being greatest during the period of insanity, and immediately before and after it; thus, I have known many cases of insane patients whose mothers had puerperal insanity, the first attack of recognised insanity following the birth of the patient, so that the factors of the disease existed earlier than the apparent symptoms. On the other hand, one has frequently seen cases in which an insane parent has begotten or developed sane children in the intervals between the attacks of insanity. The form of insanity may be direct, that is, it may be similar in parent and child; and the insanity may affect the one sex more than the other, but this does not always follow. I have known one case where a man had two wives, and by each wife one child, a boy by one and a girl by the other, yet both these children were alike nervously unstable, the father's mother having been a lunatic. It is only in rare cases that one is able to trace direct inheritance of insanity through many generations.

As in other diseases, so here, one generation may escape, or, rather, may pass on the instability without developing it. It is, however, still doubtful what governs the inheritance; and it seems that in some cases certainly the father passes his insanity more on to his sons than to his daughters. But, in my experience, I should say that whereas a mother certainly passes her tendency to nervous disorder most strongly to her daughters, a father very generally passes it to both sons and daughters in a rather less degree. It has been thought by some that a child inherits the mental characteristics of the parent he most nearly resembles in appearance, but this is doubtful. It is certain that direct inheritance is the most dangerous, and that the danger is greatest if the father is insane at or near the time of the begetting, or if the mother

is insane during or soon after the pregnancy. I am not sure as to the amount of danger to the offspring when the mother has had very pronounced insanity, or even insane longings, during the early months of pregnancy, which has been recovered from before the end of the pregnancy. If there be insanity in the families of both parents the danger of idiocy or insanity appearing in the offspring is greatly increased, and this may be easily accepted. The common dread of marriages between cousins and other blood relations is due to this fact, and in the union of family defects is seen not an arithmetical but a geometrical increase of danger. I strongly maintain that, with marked insanity direct on the one side, a slight, even distant, taint on the other side increases in a very marked degree the risk of the children proving insane. The forms of insanity transmitted or produced by such unions will require further consideration; but I may say that moral defects, so-called criminality, and forms of weak-mindedness, are very common as the result of such marriages. Besides direct inheritance of insanity, the offspring of nervous, hysterical, unstable, or degenerate parents are proved to inherit nervous instability, and this is most clearly seen in cases where two near relations of nervous, but not insane, stock marry. I have seen such parents produce whole families of idiots and of weak-minded children.

If, again, we have insanity on one side, and age, physical weakness, or some form of degenerative disease, such as phthisis, on the other side, the risk of insanity in the offspring is increased.

Besides the above, there are cases in which the insanity is due to inheritance, though not of ordinary nervous disease; and we are not yet in a position to explain its action. Certain tempera-

ments in the parents produce insane children, and I have known a whole family of lunatics, the offspring of non-neurotic parents. This is merely a statement of the fact that at present we do not know the first cause of insanity. From some cases I have seen I believe that injuries or degenerative changes in the brain of a parent may lead to insanity in the children. And here, again, the nearer the begetting is to the injury, the greater the danger.

Thus, neurotic inheritance may be started by injuries to the head of the parent, or by mental disorder in a parent associated with physical illness. I have notes of insanity occurring in the offspring after injuries to the head of the father; and in other cases I have met with post-febrile insanity in the father giving rise to weak-mindedness or liability to insanity in the children begotten about the time of the father's illness. Undoubtedly some forms of insanity are much more readily transmitted than others, and it is of the utmost importance that we should be in a position dogmatically to say that there is, or is not, danger to the children of such and such parents. The advice of the consulting physician is frequently sought as to the propriety of certain couples marrying; and although the advice given is often disregarded, the question is sufficiently important to be considered carefully. I am in the habit of saying that general paralysis of the insane is not to be considered as an ordinary nervous disorder; that it does not occur directly as the inheritance of ordinary insanity; at least, that it very frequently has no connection whatever with ordinary forms of mental derangement. On the other hand, the children of general paralytics, especially those who may have been begotten after the first well-marked symptoms of general paralysis have de-

veloped themselves, are likely to be idiotic, or, if they are sane as children, they may later in life develop ordinary neuroses. I saw one patient in Bethlem suffering from melancholia, whose father, to my knowledge, died of general paralysis; and I have been consulted about the child of a medical man who has been weak-minded from birth, she having been begotten after her father presented symptoms of general paralysis.

One special relationship of drink to nervous disease is the direct transmission of drinking tendencies from father to child. I have known a drunken father beget a child who became a drunkard, and also children who have been idiotic or who have become insane or epileptic.

Besides the effects of insanity in the parents and their forefathers, and in brothers and sisters, we must consider cousins and second cousins, as this at least gives evidence of nervous stock. It is sometimes important to discover in brothers and sisters or ancestors other neuroses; one brother may be an idiot, another epileptic, and a third may suffer from ordinary insanity. Amongst contemporary relatives or ancestors may be instances of diseases of the nervous system, of diabetes, asthma, and other disorders allied to neuroses, or instances of alcoholism, of marked eccentricity, criminality, moral perversion, or striking talent. No general law, however, has been discovered explaining why one suffers from one form of neurosis, and another from some other form; the chief inference would be, that in a family where hysteria, idiocy, epilepsy, and insanity occur, the parents, one or both, are of highly unstable nervous systems.

Constitution and temperament.—My experience leads me to believe there is a distinctly melancholic temperament, but I am not equally prepared to say that there is a special type con-

stitutionally predisposed to attacks of acute mania. The term melancholia, derived from the old-world belief that black bile had much to do with mental depression, is so far borne out by experience that the dark-complexioned and dark-haired melancholiacs are very largely in excess of the fair persons suffering from mental depression; this notwithstanding the fact that at least an equal number of people belonging to the middle classes in England are fair, and with light hair. It seems as though there were truth in the old idea that persons with dark complexions were likely to have sluggish functions and tendencies to look on the gloomy side of things. I shall have to point out that insanity is associated with various other forms of constitution, and that no temperament is free: for though diseases like phthisis give a special colouring to mental disorder; though gout, with its loaded and impeded circulation, may impress a special character on mental trouble, yet, as "man is born to trouble as the sparks fly upward," so it would be unreasonable to expect all insane people to possess specially insane temperaments, or that all should break down from one cause. The stress of life may fall most heavily along the weakest lines and may cause breakdown; whereas troubles of another order might, in the same case, fail to cause a mental decline.

Those unused to insane patients are constantly on the look out in an asylum for peculiarities in aspect, or marked strangeness in the eyes of the persons they meet. But as no one expects to meet the poet in society with his "eyes in a fine frenzy rolling," so no one should expect always to see the lunatic with a mad aspect. It, however, often strikes an observer, that among chronically insane patients there does seem to be a development of a special type of

feature, and that this type is distinctly a low one—that just as it is rare in an idiot asylum to see a beautiful and well-formed child (although not an impossibility), so in a lunatic asylum I would say it is seldom one meets with striking physical beauty. The transmission of insanity tends gradually to the abasement and ultimate extinction of the race. Degeneracy in nature is naturally in opposition to beauty and well-being. If it be allowed that an insane temperament exists, it is that which is represented by what is ordinarily called the nervous temperament, and in certain families we meet with all the varieties of neurosis in one member or another. Such a family may be said to have the nervous constitution, and may be looked upon as nearly related to the insane, yet there may be nothing physical which can be pointed to as characteristic or typical.

Besides direct inheritance, the crossing of members of consumptive families with members of other families suffering from some other forms of degeneration seems, in my observation, to produce the nervous constitution which shows itself in a tendency to nervous breakdown. It is often difficult to draw any fine line between predisposing and exciting causes, but in some the distinction is simple and straightforward. A person having an insane parentage gets into feeble health, and is thereby predisposed to break down, by inheritance primarily, by physical weakness secondarily. He gets hold of some quack publication, or falls under the influence of some emotional teacher, and thus the spark is applied to the explosive, and the result is the outbreak. Or a lad, with some strongly insane inheritance through his mother, receives a blow on the head and becomes maniacal. A man acquires the habit of gambling, drinks and smokes to excess, and leads a life of recklessness,

during which he receives an injury to his head, and this is followed by a slight attack of delirium tremens, resulting in an outburst of insanity. In this case, drink was at work impairing the nourishment of the nervous tissues, lowering the vitality of the man, rendering him less stable, so that a slight disturbance of his nervous system, previously undermined by alcohol, led easily enough to a more chronic perversion of mind. In the last two cases, the exciting causes were both blows on the head, but the predisposing causes differed entirely. And my chief objection to any tabulated returns of the causation of insanity, as seen in asylum patients, is that it is extremely uncommon to find a simple, straightforward case in which there has been but one predisposing and one exciting cause. As "the last straw breaks the camel's back," so the continuance of one vicious habit, indulged in for a sufficient length of time, may lead to mental derangement, the same cause being both the predisposing and the exciting agent.

CHAPTER IV.

CAUSES OF INSANITY (*continued*): EXCITING CAUSES.

PSYCHICAL CAUSES: Domestic trouble—Adverse circumstances—Mental anxiety and overwork—Religious excitement—Love affairs (including seduction)—Fright and nervous shock.

Exciting causes may, like predisposing ones, be either psychical or physical. Mental disorder may be equally produced by a mental shock or a blow on the head. The exciting cause may be uniform or multiform in nature. It may take the form of undue excitement or of want of fellowship. Solitude or joy, love or hate, may be at times sufficient to cause a mental upset. I would say, in fact, that one cause may be predisposing alone, or predisposing and exciting, or exciting alone; that there are causes which may be considered as complex or mixed, and that some causes act both physically and morally.

PSYCHICAL EXCITING CAUSES.

I shall briefly refer to each cause given under this head. **Domestic trouble** is the first psychical cause, and includes the loss of relatives and friends. Yearly many patients are admitted into asylums with a history of domestic trouble as the alleged cause of their insanity. This is one of the constant causes that act from day to day and from hour to hour. It is not like a sudden shock or fright, but it is a condition which is associated

with a thousand and one other slight ailments. Domestic trouble, so-called, is one of the most far-reaching of morbid agents. The appetite is impaired, digestion fails, sleep is disturbed, respiration is no longer regular and quiet; the pulse often becomes hard, its tension being high. The more the development of such conditions is watched, the more one is convinced that grave general nutritional changes are going on. I am convinced, with the late Dr. Sutton, of the London Hospital, that this condition may readily pass either into Bright's disease or into insanity, and I would look upon the degree of tension in the whole body as the one dangerous element to be considered. Grief, as a moral agent, is also of great importance. Good examples of what is meant by the effect of grief in producing insanity are frequently seen in the wards of Bethlem, in the cases of women who watch and nurse for months together, with very little rest by day or night, some near relative whose nervous and exacting temperament tasks the nurse to the utmost. Such persons, after the excitement of nursing and the burial of the relative, sink into a condition of extreme weakness, and as a result conjure up all sorts of imaginary crimes that they have committed, often thinking they have neglected, or even killed, the person for whom they have sacrificed so much.

Grief or shock at the loss of relatives, though it may cause insanity, does not necessarily produce melancholic symptoms. At first sight, one would think that the loss of a near relation would produce mental depression, but such an example as the following will show that mental disorder may be produced by painful shock and may take the form of acute mania. A young woman, who had been engaged to be married to a man who had emigrated to one of the

colonies with a view of making his fortune, lost sight of her lover for eight or nine years, and supposed herself deserted by him. She unexpectedly received a letter from him, asking if she were still free and willing to accept him, as he was returning home. She readily accepted him, and spent all her hard-earned money in providing a *trousseau* suitable for the bride of a wealthy man. He returned, and she was married to him, though she was somewhat surprised to find he was physically a wreck, and had not the appearance of wealth. On the ninth day from her wedding she awoke to find her husband dead by her side. The seeds of disease sown in the colony had borne their fruit in his sudden death. The result of this shock (for she found herself now penniless and a widow) was an attack of acute mania which lasted several months.

Other similar cases of shock producing acute mania are sufficiently common. Grief may produce a depression passing into melancholia, or the blow may be a stunning one. Thus, a person nursing most devotedly for months her paralysed husband, broke down, and after a slight fit of unconsciousness, lost her memory of all recent events; she is now incurably weak-minded. To sum up, domestic worry may, and undoubtedly does, produce insanity, both in those with an hereditary predisposition and in those without. The domestic worry acts on the body and on the mind; in some the body suffers chiefly, and the patient dies of kidney or allied diseases; in others the mental symptoms predominate, the patient becomes melancholic, maniacal, or weak-minded, the melancholy often gathering with a dream-like vagueness of imagery about the relative who has died.

The knowledge of a personal inheritance of

insanity is in many cases a perpetual worry, and this has a place amongst psychical causes.

Adverse circumstances (including *business anxieties and pecuniary difficulties*).—This variety of cause acts mostly on men, while domestic troubles, etc., fall most heavily on women. This cause also rarely acts suddenly, but is long preparing for the disaster by petty worries, anxieties, loss in position and social regard, which may be often followed later by penury, starvation, or overstimulation induced by *anxiety* and sleeplessness. Later I shall refer to the frequency with which this cause is given for general paralysis. Every year patients are admitted who have sustained severe money losses, and amongst them are cases in which distress to themselves and families has been suddenly produced. It must, however, be borne in mind that money losses are not uncommonly associated with early mental disorder as being an effect of the latter rather than its cause. Now-a-days, the speculative man who, through loss of memory or slight impairment of judgment, begins to lose his business, is often likely to end in ruin. It is a very important symptom if it can be clearly shown that a business man is losing his aptitude for accounts. I have known such a person exhibit a failure in his rubber of whist, this being the earliest symptom of a disorder which cost him many thousands of pounds. In such a case the money loss is the result, not the cause of the disorder. Special conditions, such as those of the farmer and the landed proprietor in anxious times, undoubtedly cause disorder ending in insanity, and it is but natural that this should be so. I must repeat that mental disorder is in most cases a morbid growth, and that worry and anxiety, if constantly straining the nervous energies, are pretty sure to cause a breakdown in

certain people. Pecuniary anxieties, of course, may be associated with success as well as with failure, and although, as has been repeatedly noted, joyous passions and pleasures are less destructive than painful ones, yet the anxiety consequent upon becoming rich and enlarging the barns and storehouses may produce a wear-out. I have seen several cases in which men of unbounded energy have risen from the ranks by sheer force of will and work, men who seem Argus-eyed, and able to go through the labours of a Hercules. But they drew upon their capital too heavily, and the end was physical and mental bankruptcy, though associated with boundless wealth.

To conclude this section, adverse circumstances, money losses, especially those associated with constant anxiety, tend to act by depressing physically and mentally, and, by producing symptoms similar to those described as the result of domestic trouble, lead to insanity.

Two points to be noticed are that more men than women suffer from insanity produced by causes of this nature, and that general paralysis of the insane is a common result.

Mental anxiety and worry with over-work.—This group of causes acts both on men and women; for convenience, other causes of worry and anxiety, such as can scarcely be considered domestic or economic, are placed under this head. Foolish ambition, failure, especially if repeated, the striving to hold a false position, the fact of being out of relationship to surroundings (this is seen in the intellectual or social *parvenu*), and over-work, are the chief varieties that I shall here consider.

Ambition may be what is termed laudable ambition, or it may be the striving for the unattainable; and all students of Faust must be

impressed with the danger there is in seeking for satisfaction either in the sensuous or the intellectual alone. Such unattainable ambition leads to mental disturbance. The unfortunate person is always striving for the stars, and his mental attitude is well portrayed in some of the weird sketches of William Blake, himself very near insanity. Ambition of this kind acts on body and mind alike. It occurs as a cause of insanity mostly in young men; and I shall have to refer later to a special class of youths, seen chiefly at the old universities, who, straining to lead absolutely pure and unemotional lives, ignore the fact that they have animal parts and animal passions; they do not see that although control is the highest thing to be attained, suppression is impossible, and either too much must not be expected or failure must be allowed for. Men with such ambition not unfrequently pass into a condition of mental hypochondriasis, and unless some rude social or physical disturbance recalls them to their senses, they stand a great chance of becoming first insane, and later weak-minded.

Over-work needs some consideration, since few questions are asked more frequently of the physician than such as relate to the influence of overwork in the production of insanity. In education we have seen that bad, ill-directed teaching may act injuriously upon the growing mind; but I give my opinion strongly, that with judicious education, even when a large number of subjects is studied, no danger is to be apprehended. The kind of over-work which produces ill results is forced work in direct opposition to the tastes and aptitudes of the pupil, especially when this takes place under bad hygienic conditions, and with the excitement and pressure of impending examinations acting as a stimulus. Good examples of

over-work are, to my mind, best found in the young governess and the self-educated man. The severity with which young girls are forced by injudicious and ambitious parents deserves censure. A girl of fourteen or fifteen years old is expected to spend twelve hours a day in learning languages, practising music, drawing, and deportment; and if I have to censure one part of the education more than another, it is deportment. Girls are not permitted to exercise their limbs and their chests, their heart and lungs, but must, forsooth, use implements of torture to keep their shoulders straight and their waists within the bounds which nature intended. Just as the forced plant may flower out of season, so the forced girl will become prematurely a woman. The sexual instincts are developed at the cost of the already enfeebled body, and excessive or irregular and painful menstruation occurs in girls who are ill fitted to bear any etxra drain on their strength. Over-work may seem to be an odd term to give to this combined group of causes, but if such a girl be not over-wrought I do not know who is.

Another common example of over-work is that seen in the self-educated man, who so frequently has an unbounded desire for knowledge, but does not know how to acquire it. He has a great idea that knowledge of facts is education, and looks with contempt upon the older universities and schools as mere excuses for passing time for the *jeunesse dorée*. He cannot see that education literally and really means the development of all sides of the character, and that mere special culture will fail to make a learned man. The effects of solitary self-culture are worse if begun after the plastic youthful nervous system has taken its form, and it is difficult to change its figure after it has once hardened into habit.

Work of a monotonous character is injurious, and assists in producing mental disorder. But such work is comparatively rare. To my mind, the letter-sorter, the proof-reader, and persons employed to check mechanical labour run the greatest risk of breaking down from this cause. A clerk or an accountant may suffer from the monotony of his work, but with all its dryness it is not so absolutely uniform as that of the man who sorts letters, signals trains, or corrects proofs under the pressure of time.

Religious excitement.—Probably few causes of insanity are more frequently in the mouth of the general public than religious excitement: and yet the experience of the asylum physician is that religious excitement does not produce any large proportion of the cases which come under his observation. In considering the effect of religious excitement in the production of insanity, we have to remember that there are several very important sides to the question. Firstly, what is meant by religious excitement? Secondly, is the effect direct or indirect? and, thirdly, what is the nature of the person so affected?

There seems to be abroad a feeling that nearly all insanity is the result of drunkenness, love, or religion. All of these may, separately or together, assist in the production of madness. But I think too great attention is paid to them as special factors of the disorder. An increase of insanity is sometimes apparent after religious revivals; but it is a question whether a large number of the people who thus exhibit insanity are not already prepared for the manifestation of insane symptoms, and whether religious excitement has only acted in modifying or giving colour to the insanity. In fact, religion has been only the exciting cause of the mental disorder, and it does not

follow that the symptoms produced by religious excitement should necessarily be of any particular religious type. When people talk of religious mania, they often confound two things: first, the cases in which patients are constantly speaking about religious matters, more especially those who are for ever repeating texts, or, with hand-wringing and melancholy aspect, are complaining that their souls are lost; and next, the cases which appear to have been produced by some religious movement. There is a very great distinction to be made between the many cases which exhibit some religious symptoms and the few which are really caused by religion itself. Just as good education, even though a great deal of it is forced upon the growing animal, rarely produces harm, so religion even in excess need not be the simple cause of mental disturbance.

It may be well here to point out a reason for the constant recurrence of religious ideas in the insane. One of the most marked characteristics of religion is its mysticism, its professed dealings with powers which cannot be weighed and measured, and yet which have an enormous influence on the well-being of the individual. The person passing from a condition of sanity into one of insanity goes through a series of indescribable feelings, and he thinks his new experiences may after all be explained by the powers of the Omnipotent exercised over him. Religions have always dealt largely in explaining strange or unusual occurrences, and the same tendency is constantly met with in persons of unsound mind. In many cases the patient, suffering from the earlier stages of melancholy, is looking about for some possible cause of his misery, and having failed to find in his bodily or mental surroundings any satisfactory explanation of his feelings, he discovers one in some

text of Scripture. The religious side of civilised society is an important one, and finds occupation for such a large class of men and women, that it would be strange indeed if it did not produce some special fruit when the mind is unbalanced.

A direct way in which religious excitement acts is by causing restless uncurbed emotional excitement, so that the person affected may pass through a period of religious devotion into one of hysterical disturbance, and this may lead to maniacal fury. On the other hand, religion may act indirectly, as we have occasionally seen in connection with the Salvation Army, to a certain extent causing, but to a much greater extent colouring, the disease. Thus an old clergyman, whose arteries are getting rigid and who is suffering from dyspepsia and constipation, becomes sleepless and worried, and fancies that he is on the brink of ruin, or that his children are in distress; next he feels he has not been a good father or a faithful pastor. From this state it is but a slight step to the belief that he is utterly unworthy, and that while he has been preaching to others he himself will be a castaway. Cases similar to this are common enough, and I believe the majority of them occur with those who are the most earnest workers in their profession, especially if with earnestness there is but little of the broader kind of culture.

Among patients who are upset by religious excitement I distinguish two classes—the young and emotional, and the old or degenerating, who are frequently emotional too. In connection with the first class we have to bear in mind the fact that religion is very closely allied to love, and that the love of woman and the worship of God are constant sources of trouble to unstable youth. And it is interesting to note the frequency with which these two deep feelings are associated. In the

second class, as we have said, the older cases occur, and these are chiefly characterised by mental depression with feelings of unworthiness, with ideas of not having done their duty, or of having committed that most wonderful of all faults "the unpardonable sin." In this class of cases, too, there may be sexual perversions, so that one patient will consider she has committed the unpardonable sin in allowing marital congress, while another thinks she has failed by denying it, thus driving her husband to sin. The religious and sexual sides of man's nature are both closely connected with the emotional development and are both connected also with his organic nature. I have often been astonished to find that miserable patients in a lunatic asylum were still indulging in some form of sexual excess.

To sum up, religious excitement may produce some insanity by unhinging the minds of the young, especially of the young nervous females of a society over which a religious wave passes. As a rule, however, religious insanity, so called, is the symptom, not the cause of the disorder.

Love affairs (including *seduction*).—I naturally pass from the consideration of insanity that is produced by religious disturbance to that caused by love. And here I shall consider love in the more spiritual sense, having in the next chapter, under physical causes, to refer to sexual excesses of various kinds.

Love is a powerful force in stimulating to bodily and mental action. Desire is one of the strongest of animal passions. The wild animal, such as a stag, which is docile or timid to a degree, will, when that *causa teterrima belli*, love, enters in, become a furious and dangerous antagonist. Education and the restrictions of society have done much to suppress the appearances of emotion, and

have controlled most markedly the exhibitions of sexual longing. But the root of the evil lies deeper, and as soon as self-control is lost, one sees the passions manifested in all their naked truth. Love, under these circumstances, will have to be looked upon as one of the causes, and also one of the symptoms, of mental disorder. Generally, disappointment, unrequited affection, or extinguished passion are the chief causes, so that it may be accepted as extremely rare for disturbance to arise from the successful pursuit of love. As with the other causes, there must be fretting or jarring of the wheels of the machine to cause disaster. The mere healthy fulfilment of function is not likely to produce disease. The persons most likely to break down from disappointed affections are women; and the danger increases with age up to a certain limit, so that it would be considered a much more serious thing for a woman of thirty to be cast off by her lover than for one of twenty. The consideration, however, of nervous inheritance would have something to do with the prospect, and any other cause of special bodily deterioration will have also to be noted. As may readily be expected, seduction, in addition to desertion, will greatly increase the probability of a mental upset.

Under the head of love I think it well to refer to another class of cases, which probably are uncommon. I have seen several examples in which young men and young women of highly sensitive, and sometimes of strongly religious tendencies have, like some of the monks of old, suppressed their passions till they have seen visions appearing to them, perhaps, as ghostly temptations to sin.

Fright and nervous shock.—From time to time a good many diseases of the nervous system have been attributed to shock or fright, but just as

at the present time fewer believe in fright producing chorea than formerly, so I hold that the influence of fright, in the production of insanity, is looked upon as less potent than it was. Yet I have seen several cases in which there could be no doubt that fright was the immediate cause of the insanity. Thus, a young man returning home from a public-house on the fifth of November was greatly alarmed by a practical joke played upon him by some of his companions, who threw squibs at him as he passed along a dark lane. On the morrow he was found in bed in a condition which induced his brother to think he had been drinking, but this proved to be an attack of acute dementia, from which he suffered for some months, but ultimately recovered, with absolute oblivion of the period which had intervened. In another case, a fire in the house set up an attack of acute mania, which ended fatally within a week. In other cases I have seen less sudden shocks act as disastrously. I have known one man falsely accused of theft, and another who was boycotted by his fellows; both of these led lives of great anxiety for some weeks, and then became insane for some time. I could give many other examples in which frights, such as those occurring from accidents or from felonious attacks, have been followed by serious mental symptoms, so that a woman assaulted with a criminal intent has become weak-minded, and at least some of the cases of post-connubial insanity are due to the shock of marriage.

One important point to be remembered is, that although shock or fright may occasionally act immediately and directly, yet at other times the result does not make its appearance for weeks or even months after the actual occurrence. This is not only specially true in the case of frights, but

will be seen constantly to occur with the more ordinary causes of insanity. If we go sufficiently far back, a single exciting cause may be seen to have given a bend or inclination to the whole nervous life, which from that time goes on to degeneration, and not to evolution.

CHAPTER V.

CAUSES OF INSANITY (*concluded*): EXCITING CAUSES.

PHYSICAL CAUSES: Induced insanity—Intemperance in drink—Sexual excess—Venereal disease—Self-abuse (sexual)—Over-exertion—Sunstroke—Accident or injury—Pregnancy—Parturition and lactation—Uterine and ovarian disorders — Puberty — Climacteric — Fevers— Privation and starvation—Old age—Congenital defects—Bodily deformities—Unknown causes.

PHYSICAL EXCITING CAUSES.

Induced insanity.—In everyday life we see the results of imitation and suggestion, not only in individual cases but also in mass; so that an epidemic of hysteria may affect a community of young girls and a religious revival disturb the equanimity of a whole village. It is therefore not to be wondered at if insanity is sometimes induced in those who deal with the insane and who are themselves predisposed to the malady. Thus one sees not unfrequently two sisters exhibiting the same form of mental disorder, the one having broken down whilst nursing the other, and several members of a family may become affected in like manner. This condition is often spoken of as *folie à deux*. The terms "echolalia" and "echopraxia" have been applied to the imitation of words and of gestures respectively.

Intemperance in drink.—Intemperance, as I have said before, is a very multiple agent in causing insanity. It acts directly upon the brain as a poison; it acts indirectly upon the brain by

impairing nutrition and interfering with the depuration of the blood; it acts morally by lowering the social condition of the majority of those who indulge to excess, and indirectly it leads to injuries, exposure to cold, and similar damaging influences. I shall have to consider insanity as specially connected with drink, and therefore here I shall but briefly give a general outline of its action.

Large single doses of stimulants may act almost like a shock, and render the person taking them powerless, or, in some cases, suddenly maniacal; more commonly the excess in drink is a frequently-repeated act, and the effects are the result of the constant repetition, the whole nutrition of the body suffering. It will be noted that in these cases there is a progressive loss of mental power, which resembles, in many particulars, the progressive loss of faculties which is seen in general paralysis of the insane, the higher powers of self-control being earliest lost, the moral sense and social and domestic feelings suffering in turn, till, later on, memory and reasoning power, and finally even the simpler organic nervous actions, are suspended.

Intemperance may act in another way. Bouts or recurrences of drinking are associated with repeated attacks of delirium tremens, these attacks shaking the nervous system so severely that in the end it totters and falls. I have seen several cases belonging to nervous families in which an attack of delirium tremens has passed directly into an attack of acute mania, persisting for weeks after the alcoholic poisoning had been got rid of. The influence of drink is greatly increased if there be strong inheritance, so that certain persons, who might have become insane from some other cause, become insane in consequence of drink, as it were by accident.

Again, the effect of drink in producing nervous disturbance must be considered in connection with injuries to the head. I have known several cases admitted into asylums with drink given as the cause of insanity, whereas the true cause was injury to the head, which rendered the nervous system so unstable that a slight amount of drink "flew to the head," as the friends of the patient graphically express it, and seemed to stop there, for the balance having been lost, it required some weeks to set it right.

Dipsomania is a symptom which I shall discuss more fully later on. With regard to this subject of intemperance in drink I must insist that it often requires very careful discrimination of cases to be perfectly sure that drink is the cause of the insanity, and not one of the earliest symptoms. For, in my experience, one of the most common tendencies of early lunacy is to seek for sleep, relief from pain, excitement, or alleviation of trouble in drink. In such cases the nervous disturbance was already fairly started before the drink was taken to excess; here, then, drink can at most be looked upon as an exciting, not a predisposing, cause.

Taking the yearly average number of patients admitted into all institutions for the insane for the five years 1900-1904, the Lunacy Commissioners' Report for 1906 shows that alcoholic excess was assigned as the cause of insanity in, for private patients, 16.7 per cent. of the males and 8.5 per cent. of the females. For paupers the figures were respectively 23.3 and 9.3 per cent.

Intemperance in other forms of stimulation or narcotism must be noted. Thus morphia, cocain, chloral hydrate, sal-volatile, tobacco, and haschisch (hemp) may act as toxic agents and cause mental disorder. In Italy, Egypt, and elsewhere, the in-

gestion of bad maize produces the disease known as *pellagra*, which has amongst its symptoms disorder of mind. Before leaving this subject, I would say that if there be a marked increase of insanity among the educated classes, I have no evidence that there is any direct connection between the increase of insanity and any increased consumption of intoxicating drinks. Among the lower orders it has been shown that when wages are high and work abundant great excesses in drink are common, and, at the same time, insanity abounds, but that with strikes and depression of trade there will be teetotal movements and decrease of admissions to asylums.

Teetotalism is no preventive of insanity, for I am constantly in the habit of seeing patients who have been teetotalers for years, or even for their whole lives, and yet have not staved off attacks of insanity. Among total abstainers we have, of course, to recognise that with a certain number abstinence is the earliest symptom of their insanity—that is, of their perversion. They are suffering from mental depression, and feel contrite and anxious to make amends for the past; but, as the proverb has it, "When the devil was ill, the devil a monk would be," so the drinker has become teetotal as a symptom of his melancholy; and the reaction may be as marked as the original fit of abstinence, the unfortunate drinker returning with fresh vigour to his cups when the wave of depression has passed.

In some cases, after the depression of the abstinence an ordinary attack of insanity may follow, or the patient may become changed in mental character, and remain perverted as long as he lives.

Sexual excess.—This is a somewhat delicate and difficult point to discuss, not from any feelings

of modesty (for to the physiologist all things are pure), but because the practical knowledge of the physician as to the intimate relationship of the sexes is limited, and his evidence is consequently likely to be imperfect. It is quite certain that the modern way of associating the sexes as established by society is altogether unnatural and arbitrary. The sexual instincts, which were originally intended, and still exist in the animals most nearly allied to man, purely for the continuation of the species, have been in the human animal cultivated for ages as a special source of pleasure, out of relationship, I had almost said in direct opposition, to the function of reproduction. Sexual indulgence is, therefore, gratified under every kind of stimulant, and without any definite periods of rest. This most costly of functions is performed in the most reckless manner by immature individuals, who are wasting not only their physical income in riotous living, but are drawing by every means in their power upon their physical capital.

Sexual excess is a purely relative term. What would be excess in one individual would have no disastrous effect upon another, and it will be my duty to point out what I consider to be the symptoms of nervous disorder produced directly by sexual excess.

In some cases bursts of excess, like outbreaks of drinking, produce sudden disturbances, and I have seen several cases of young newly-married people who were rendered emotionally insane in consequence of a few days' sexual orgy. It was formerly common with English authorities to look to sexual excess as the chief cause of general paralysis of the insane, and I must own that I have noticed that the wives of certain general paralytics are representatives of what I may call the gross animal type of woman. This, however, is not

evidence that they or their husbands have indulged unduly in sexual intercourse, for the voluptuous in appearance are not always the amorous, and I believe Ovid would have associated excess rather with thin and slender women. In several cases I have received histories of epilepsy occurring for the first time about the period of sexual congress, and in one case there seemed to be distinct relationship established between imperfect sexual congress and epilepsy, followed by insanity. Sexual, like alcoholic excess, may be an early symptom, and not the cause of insanity.

Venereal disease (more especially *syphilis*).—Occasionally young patients are admitted suffering from considerable mental depression with general hypochondriacal symptoms, associated with an attack of gonorrhœa. Such patients have been preparing gradually an attack of insanity, which has been simply precipitated by the moral and physical distress induced by the gonorrhœa.

The many ways in which syphilis acts as a cause of insanity will require a rather lengthy description, and, like many of the preceding causes of insanity, may have more than one aspect in connection with unsoundness of mind. Many insane persons contract syphilis after they have become insane, and the attack of insanity may have nothing whatever to do with the syphilitic disorder. On the other hand, cases are seen to occur in which syphilis, contracted years and years before, colours the hypochondriacal melancholy, and gives the malady the form that, by some, is named syphilophobia. I remember some years ago a Persian who was in Bethlem suffering from a form of simple melancholia, which for weeks seemed to be without any definite delusion; the patient was suffering from simple melancholy, as evidenced by his whole aspect, and by the slowness of his mental

action. He said he could give no account of the origin of his misery; but after careful watching it was noticed that he was constantly washing his underclothing, and on one occasion became violent because another patient had taken some bread which he had touched. It soon became evident that he was suffering from syphilophobia, and feared that anything which touched his body might convey the disease to others. This is another good example of the way in which the insane will endeavour to explain the miseries from which they suffer.

Besides the mental influence of an attack of syphilis, we may have patients suffering from epilepsy produced by some syphilitic tumour of the brain or its membranes, and the insanity may be in every particular like that occurring with ordinary epilepsy. In my experience it is more common to get progressive weak-mindedness as the result of epileptic fits due to syphilis than it is to meet with attacks of mania directly associated with the fit. Thus epilepsy, produced by syphilitic tumours within the skull, may tend to weak-mindedness. Allied to this condition must be considered some cases in which syphilitic changes have affected special parts of the brain and its meninges, so that symptoms which were indistinguishable from those of general paralysis of the insane have been developed, and the diagnosis has only been cleared up at the *post-mortem* examination. Besides the symptoms associated with epilepsy, we may have various kinds of insanity, such as mania, melancholia, or dementia, connected either with syphilitic tumours in the skull, or with syphilitic disease of the arteries.

Cases will be described fully in which various perversions of intellect have been directly trace-

able to coarse syphilitic lesions, cases some of which, at least, have been cured by having been placed under proper treatment.

Two special varieties of cases are noteworthy. In the first of these there has been some severe local disease setting up sensory perversion; thus, a patient with double optic neuritis due to syphilis had impaired vision, and as a result became suspicious and dangerous, thinking people, whom he saw but vaguely, were going to injure him in one way or another. In the second, tumours of the brain due to syphilis may produce epilepsy, which very often is associated with symptoms of local paralysis, such as strabismus and ptosis; such symptoms, by the way, being rare in ordinary cases of insanity and general paralysis, point often directly to their specific origin. In some syphilitic cases, without epilepsy, the mind may become deranged; in these we are obliged to suppose that the symptoms are due to syphilitic arterial change, this taking the form of endarteritis with narrowing of the lumen. The relationship between the two maladies is this: a man having had syphilis, followed by constitutional symptoms, without either fits or paralysis, becomes altered in character, and ultimately weak in mind. The only explanation is, either that the disease affects the general nutrition, or so injuriously affects the arteries that the supply of nutriment is limited. This possible limitation of nutrition leads us to consider another way in which syphilis may act.

I have seen several patients who have been admitted into asylums suffering from insanity with syphilis, which latter has been persistently and energetically treated. The patients were extremely weak and cachectic, but whether the cachexia was due to syphilis, or syphilis plus treatment, I cannot say; in any case, I believe the

symptoms were more due to cachexia than to syphilis specifically.

The part played by syphilis in the production of general paralysis of the insane will be described later.

To conclude, syphilis may produce perversion with hypochondriacal symptoms; it may act directly on the brain by means of tumour or impeded circulation; finally, it may act by reducing the whole vitality of brain and body, or by interfering with recovery.

Self-abuse (sexual).—This, as a cause of insanity, is certainly fully recognised by the profession and the world at large, but that it occurs in both sexes is not so fully known. In handling this subject I feel more than ordinary difficulty in adjusting the balance without undue inclination. I have already said that youth is a period of nervous instability, and that it is a period when smaller shocks will cause an upset, or derange the balance. The whole of a new side of the life is being developed, and the hitherto chiefly egoistic is now growing out of itself, and becoming more altruistic. At this period of instability, excesses of any kind, especially excesses that act, not only on the body, but on the moral nature, are very serious in their consequences. Masturbation is probably, in a large proportion of cases, a communicated vice. It is taught by one to another; but I have records of cases both of boys and girls in which the individuals acknowledge that they developed untaught their evil habit, and they have given me graphic descriptions of the way in which they first learnt secretly to gratify their lusts. Masturbation does produce a certain amount of insanity; of this I have no doubt whatever; but it produces insanity chiefly, if not solely, in those who are highly nervous. Such patients have highly mobile nervous

systems, and too frequently have precocity both in mind and passion, so that they have been forced in education, and at the same time have prematurely developed sexual desires. In such persons, masturbation is indulged in to great excess, with very serious results. I have known precocious sexual development associated with masturbation which was begun without teaching before the individual was five years of age. As a rule, the earlier the age at which masturbation commences, the stronger the nervous inheritance, and the greater the tendency to insanity as a result.

Although masturbation is a frequent cause of insanity, it may also be looked upon as a symptom. It is within my experience that many patients have behaved with perfect self-control till becoming insane, when they have given themselves up to the indulgence of this vice, so that it is not safe to say that a person suffering from insanity, and at the same time indulging in masturbation, has produced his insanity by this vicious and destructive habit. Such cases are seen among young women and boys who are suffering from acute mania. They are seen again among general paralytics in the earlier stage of the disease, and in many cases of puerperal insanity, in which latter case the practice is probably connected with local irritation. Masturbation, as a symptom of disease, also occurs at the climacteric, and seems to be like a final blaze of passion before its complete extinction, or at least its altered condition. It may again occur as a symptom in old age. I have even known it habitually indulged in by a chronic lunatic over ninety years of age. Masturbation, then, may be a cause of insanity in either sex, but it occurs still more frequently as a symptom of mental disorder.

Over-exertion.—I have but little experience of simple over-exertion producing insanity. That men

of extreme energy and unbounded power of work do break down will be more fully illustrated under the head of general paralysis. Such men seem to burn the candle at both ends; and, as an example, I will give the case of a lawyer, who, having made a large business, married a young wife who was fond of society. She induced her husband to go out a great deal, and encouraged him in leading an active political and social life. This many-sided and continuous kind of strain ended in premature wear-out. I have seen a few cases of young athletes who have become insane, but I have never been able to satisfy myself that insanity in any way depended upon the exercise. In one case, a famous runner, who afterwards became a clergyman, passed through stages of excitement into weak-mindedness, and as intellect disappeared it was noticeable that the attitude and movements of the runner persisted even longer than those of the clergyman. In one other case, a man who had been in the habit of using fifty-pound dumb-bells became insane; but I should hardly like to say that the excessive exertion had anything to do with it. Continuous exertion, however, under bad hygienic surroundings, is a cause of nervous exhaustion, and is likely enough to disturb an unstable nervous system. But we must always be prepared to find that the over-exertion taken by a person of unsound mind was rather the result of his insanity than a cause of it. Many patients, in the earlier period of general paralysis of the insane, will walk long distances, and accomplish what appear to be marvellous feats, as parts of the disease; but the friends would be much more likely to attribute the symptoms to the exercise rather than the exercise to the disease.

Sunstroke.—Although sunstroke produces a certain amount of insanity yearly, the evidence as

to its frequently causing insanity, in England at all events, is small. Just as during the summer we expect to hear of rabies and hydrophobia, so with a temperature above the average we are sure to hear of sunstroke. I divide the cases into those in which the sun has had, first a direct, and second an indirect action on the patient, sunstroke being really the cause of the first cases, but exhaustion, associated with either want of food or excess of stimulants, producing the disorder in the latter. Frequently cases of general paralysis are supposed to have been caused by sunstroke, but in these cases a fit of unconsciousness has been mistaken for sunstroke.

Accident or injury.—I shall consider traumatic insanity more in detail later on, but here I only say that insanity may be produced in some cases by injuries to the head. Epilepsy, undoubtedly, with its associated mental disorders, may be produced by head injuries. A certain number of cases of general paralysis of the insane have also been traced to injuries of one part or another of the nervous system. Thus, injuries to the brain, from concussions, and similar injuries to the spinal cord, have, in my experience, given rise to the disease. As already noticed, when speaking of the effects of drink, some persons who have been injured in the head are more unstable nervously, and are more liable to become affected by other exciting causes of insanity, than they were before the injury. I believe, too, that injuries to the brain of a parent may produce nervous instability in the offspring. That, in fact, just as Brown-Séquard's rabbits exhibited epilepsy as a direct inheritance from parents in whom epilepsy had been induced artificially, so human beings may become insane as a result of injury to the heads of their parents. Injury to the head may act indirectly by producing

some bone depression or disease, so that inflammation of the membranes may be a cause of the disorder, or by causing concussion of the brain. In at least one case I have seen comparatively slight injury to the head produce insanity in a lad who was, however, strongly predisposed to insanity by direct inheritance.

To sum up, injury may produce insanity, whether it affects the brain or spinal cord. It may produce symptoms immediately as the result of the injury, or the symptoms may develop secondarily to some altered condition of nutrition. It is a question whether effusions of blood within the skull may give rise to nutritional changes in the cortex that may end in insanity. I have been unable to decide from any cases I have seen, but certainly in one case of general paralysis, where early and severe head injury was given as the cause of the disease, there was present a large organised membrane, which might have had its origin in the injury.

Pregnancy.—Under this cause I shall, for convenience, put together pregnancy and all the conditions associated with parturition and the period succeeding.

The subject of puerperal insanity has, from time immemorial, been considered as a special one, the only speciality really being causation. In puerperal insanity, the mental disorder has nothing special or peculiar about it. The term puerperal "mania" is misleading, for we may have mania, melancholia, or dementia directly associated with pregnancy and childbirth. The action of pregnancy in the production of nervous disturbance is simple and straightforward enough. Just as at puberty there is a perversion of function associated with the early development of sexual instinct, so with the perfection of the function there may be

a very serious alteration in the various parts of the body. We are all sufficiently used to the cravings of the hysterical girl and of the pregnant woman, and though I would not for a moment consider all fanciful desires of this nature as being necessarily associated with insanity, yet I am sure that in persons of nervous stock the tendency to peculiar longings is more marked than in those of greater stability.

Pregnancy seems to cause insanity in two distinctly different ways; or perhaps it would be better to say that at two distinct periods of pregnancy insanity is likely to appear. During the earlier months, at the time when physical disturbance is most common, and when the woman is suffering from sickness, neuralgia, malaise, and restlessness generally, she may pass into a condition of insanity which may disappear about the end of the fourth month. The pregnancy here has acted as an irritant, if I may so say, causing irritation similar in many respects to that produced by ovarian tumours or uterine affections, first inducing ordinary bodily symptoms, and later developing insanity in persons predisposed to it. In the second class, we find insanity developing during the later months of pregnancy; and though the worry, physical and mental, of the pregnant condition has been the chief factor in developing the disorder, the termination of the pregnancy does not bring mental relief, and the patient passes from a state of insanity of pregnancy to one of puerperal mania. In most cases of insanity connected with pregnancy, or the puerperal state, there are other contributing causes. Inheritance plays a very important part, and, in my experience of many hundreds of cases, I should say that inheritance is the chief factor, and the pregnant condition a secondary one.

Besides the physical disturbance produced by pregnancy, I shall have to consider the fact that the onset of insanity in a measure depends upon the characters of the various pregnancies. Thus, I have known insanity to occur only in male pregnancies, and I believe other cases have been described in which they have taken place only with female children. Pregnancy, again, is likely to act as a cause of insanity in women who have had previous attacks which may have originated from other causes; and what is most common in my experience is for a woman who has had several attacks of puerperal insanity to have later an attack of insanity with pregnancy, the nervous system becoming more and more unstable, and a very slight cause disturbing the balance. Many women go through other causes of depression without suffering nervously, and yet become insane with each pregnancy or each delivery.

Parturition and Lactation.—Insanity may follow parturition, there having been no marked insanity before; it may be an exaggeration of the emotional state produced by the pains of labour. Just as we said insanity might be started by a fit of delirium tremens, so an attack of mania may be started by labour pains. Next, ephemeral attacks of insanity may follow the onset of milk. Alarming symptoms, such as fever, high pulse, sleeplessness, and anxiety, may occur a few days after delivery, and may pass off after the administration of a purge. At this period we may have an attack of insanity which may readily pass off also, and in my opinion some acts of infanticide are committed during these ephemeral attacks of mania. Puerperal convulsions may also be followed by insanity, but it is not specially common to find the insanity following any unnatural delivery. A certain number of cases follow delivery

under chloroform, and we, of course, meet with cases after the application of forceps; but by far the larger number of cases that have fallen under my observation have succeeded labours which were natural in every particular.

With the danger of parturition we have to consider blood-poisoning. I have seen several cases of puerperal insanity in which *post mortem* there were found evidences of distinct septic poisoning, but that this was the cause of the insanity I am not prepared to say. It is a generally accepted belief that the insanity following delivery within a fortnight is likely to assume a maniacal form, but if the insanity come on at a later period, the symptoms will probably be melancholic. At almost any period after delivery symptoms of insanity may arise; and the effect of lactation is difficult to measure, for though some women may give nourishment to their children for years without suffering, others will suffer considerably from the drain of a few weeks or months. It is thus evident that persons of the nervous type, if reduced by any general or local cause, are likely to have an attack of insanity, and in such cases it is rare to find one cause alone producing the effect. A woman having had several children in rapid succession, and having suckled the last with the idea that by doing this she would avoid becoming pregnant, discovers that she is advanced in pregnancy and gives up suckling; she gets through her confinement fairly well, but again suckles her child, and thus reduces herself to a very weak condition of physical health. She becomes sleepless and nervous, fancying that she is going to be deserted, or that something is going to happen to her children and herself, and finally makes an attempt upon her own life, whereupon she is declared to be insane, and is placed under proper control. The

weakness produced by prolonged lactation and frequent pregnancy has caused the disorder.

We have thus seen that the action of pregnancy, parturition, and lactation may be simple or compound. They may act immediately, or the result may be postponed for some time. Several of the more common symptoms of the insanity of this period are generally placed among the causes, such as sleeplessness, jealousy, dislike of husband, or family jars.

Uterine and ovarian disorders.—I fear that in asylums comparatively little is done in the way of careful study of uterine conditions. For my own part, I have been, and am still, afraid that by interfering with the uterus by careful and repeated examination, the ideas of the patient would be concentrated on herself, and hypochondriasis, which is already too common, would develop. Flexed or misplaced uteri, with simple ulceration of the os or cervix, may produce a long string of symptoms; but, on the other hand, the concentration of thoughts on the reproductive organs is, in my opinion, fraught with even greater danger. I have seen a few cases in which some marked mal-position has set up unmistakable symptoms, which have been relieved by its removal. In one case, a patient suffering from melancholia recovered on the replacement of a prolapsed uterus; and that the uterus has a direct influence upon mental action may be seen in other ways. I have seen a patient suddenly recover after a retro-uterine hæmatocele had developed; in this case, the cure rather followed the physical suffering than the uterine disease. In a few cases, cancer of the uterus has been at least associated with insanity, but the part played by the cancer is doubtful. It may, like any other uterine disease, cause worry, anxiety, sleeplessness, pain, and

nervous exhaustion; or it may give colour to the insanity itself, so that the patient with cancer of the uterus may declare that she has a menagerie in her inside. In one recent case, cancer developed itself both in the uterus and in the breast, the association being specially interesting as occurring in the two distinct parts of the reproductive system.

Next as to the effect of ovarian disease on insanity. There is a class of hysterical patients whose symptoms become sufficiently grave to require their removal to an asylum, in whom one meets with ovarian tenderness and swelling, irregularity of menstruation, sometimes with menorrhagia. And although the insane symptoms do not depend on ovaritis, the whole group of symptoms is intimately connected. I have met with ovarian enlargement and tenderness associated with melancholia, with stupor, and a profuse flow of saliva. In some of the cases, treatment directed to the ovaries produced beneficial results. I have seen about six cases of ovarian dropsy associated with insanity, and I shall later give particulars of the symptoms seen with the association of these two diseases. They seemed to be of two descriptions; in the one there were the earlier symptoms of the ovarian disease, *i.e.*, irritability passing into mania; in the other there were associated hypochondriasis and melancholia. Unfortunately none of the cases was in such a condition as to justify surgical interference; the only one which, having improved considerably in general health, was temporarily transferred to a general hospital for operation, died suddenly from rupture of the cyst.

As to ovarian disorders and hallucinations, see p. 78.

To sum up, insanity may be started either by serious uterine or ovarian disease, and the symp-

toms may have some direct relationship to the seat of the disorder.

Disease of other viscera (as of heart, lung, kidney) and **disorders of metabolism** will later be described as causes of mental disorder, as will also the **grosser brain lesions**, such as cerebral growths.

Puberty.—We have referred to this in connection with the causation of insanity among the predisposing causes (p. 28). We also referred to it when considering sexual causes and self-abuse. The period of puberty is one of special danger in families with the neurotic taint. At this period, too, phthisis and allied disorders are most common, and the body, being hardly as yet firmly set, cannot withstand any extra shock. The forms of insanity occurring at this period are chiefly characterised by their tendency either to get well rapidly or else to pass directly into a condition of weak-mindedness. As we saw that in childhood the necessary result of nervous disease was idiocy or imbecility, so now we see that a common end of acute insanity at or about the period of puberty is dementia or chronic weak-mindedness.

Climacteric.—At the other end of life, answering in many respects to the period of puberty, we meet with a time in which the whole system is unstable and ready to develop unhealthy tendencies (see pp. 29 and 201). At this period the reproductive organs, especially in women, may develop morbid growths, so that cancer of the breast or uterus is most commonly first met with about this time of life. Elsewhere I have said that a climacteric period may occur in men as well, though not so well marked as among women. At the climacteric there is a well-recognised intellectual change common among women, so that they may become more fully intellectually developed than at any earlier

period: they pass into a state of mind and body which is best described as one of greater freedom. Many great writers among women have done their best work after the menopause; but this increased activity is evidence of considerable change in the nervous and bodily relations, and it is not surprising that, in some cases, instead of intellectual development there should be signs of intellectual decay. The chief characteristic of insanity at this period is a hypochondriacal habit of mind, so that patients of one group consider that they have mis-spent their lives, and that they are morally ruined; while those of another group, developing the same sort of ideas, consider they have either injured their bodies, or have in some way become changed or unnatural. Other symptoms exhibiting sense perversion are not uncommon, and may possibly be explained upon the theory that they are the ordinary symptoms of the climacteric insanely interpreted. Thus, it is common for women of about forty-five years of age to complain of feelings of heat and oppression on the crown of the head, and of feelings of heat and cold all over the body. It, however, requires the insane person to explain these feelings by saying she has something hot and alive in her head, or that chloroform, chloride of lime, or ammonia is thrown over her. The climacteric is associated with changes in the reproductive functions, and, as a consequence, there are frequently hallucinations of smell. Indeed, where we have ovarian troubles we may expect to find hallucinations of smell, taste, and touch (*see* Hallucinations, Chap. XII.).

Fevers. - It is comparatively rare to receive patients into Bethlem whose insanity depends directly upon fever, but there are two distinct conditions under which mental disturbance is developed from febrile diseases.

In the first, the initial delirium of a fever, such as scarlet fever, may start the morbid process, and the patient pass from delirium into mania. During a period of eleven years there were admitted some half-a-dozen cases of fever, mistaken for acute mania. I have thus had cases of small-pox and scarlet fever; and although I should have been prepared to find that typhoid fever might also have given rise to the same kind of error, yet I have not met with it.

Next, after fevers patients may pass into various states of mental unsoundness. This, however, does not depend upon any special hyperpyrexia, nor, as far as I know, on any special complication in the fever itself. It is due more to a predisposition to nervous diseases generally. Many of those who have come under my notice have had insane and otherwise neurotic relatives.

In some cases, as a result of fever there is temporary or permanent weak-mindedness, chiefly evidenced by irritability and selfishness. This may pass into a condition of dementia which may be but slowly recovered from. We meet with such mental perversions following the continued fevers, also with small-pox, scarlet fever, cholera, pneumonia, and rheumatic fever. I have seen various forms of mental weakness succeeding rheumatic fever, both with and without hyperpyrexia. Having no personal experience of tropical fevers, malarial or other, I think it best to leave on one side the consideration of reported cases of nervous disturbance following them.

The epidemics of influenza which have prevailed of recent years have shown that that disorder is very liable to be followed by mental disturbances in persons with neurotic inheritance, and the effect is not unfrequently remote. Cases are received into asylums in states of mental

debility, of confusion or delirium, even of general paralysis, and although these states may have an immediate exciting cause, the history frequently is that the patient has never been the same mentally since an attack of influenza weeks or months before.

To conclude this part of causation, I would say that insanity may be started by the initial processes of the fever, or may be a sequel to the febrile process. These conditions may affect those predisposed by inheritance, or others.

Privation and starvation.—Privation, as a cause of general debility, may predispose to insanity, and react very seriously on those who are beginning to show signs of mental disorder. Starvation is more commonly a symptom than a cause, and I shall have to point out the various reasons which may induce patients to refuse their food. The discussion of this subject will be found under Melancholia.

Old age.—This acts in several ways, and as a patient once said to me, he felt that, like Swift, he was "dying from the top." Many cases do die by their nervous systems degenerating along the line of highest development; and as a seed contains potentially a tree, so a man may be born with the tendency to break down at a certain period in a definite way. I have seen such cases of families in which there appeared to be a dangerous and almost fatal period of life. I have seen patients suffering from emaciation and active melancholia at sixty-five years of age, and, on inquiring, I have heard that a parent and a grandparent had broken down in a similar way at a like age. I have seen a man attacked with dementia at between sixty and seventy years of age, his mother having suffered similarly. There is nothing very surprising in this. One sees cases

in which apoplexy, kidney disease, heart disease, lung disease, or gouty troubles develop in members of the same family and at about the same period. Later I shall refer to the connection between the diseases of age and insanity.

Naturally man passes from middle and mature life slowly into "the lean and slippered pantaloon." He should, according to the dramatist, pass from sanity into a condition of folly, but fortunately only a small proportion follow this precept to the letter. Age, with accompanying brain-wasting, may be chiefly marked by loss of self-control, as evidenced by loquacity or irritability; or by change of habits, by niggardliness with dread of ruin; or there may be outbursts of passion and lust. It does not, however, follow that wasting of brain should be directly and immediately associated with wasting of all intellectual capacity; for we meet many an old man whose memories of the past are rich and varied, who may yet be the subject of progressive senile weak-mindedness, as shown by some of the symptoms above mentioned. In age, the check, self-control, is removed in one man, and the result may be maniacal excitement of a peculiar kind, rapidly tending to exhaustion of body and destruction of mind. In others the brain changes are followed by melancholia, and the man's mind, like his body, seems to go on crutches. He thinks and moves painfully, the result of the bad nutrition of his brain being that he feels the very working of his mind just as he feels the digestion of his food. The perception of these unusual sensations gives him pain and causes concentration of his ideas upon himself, this being the chief factor in the development of melancholy.

A third condition is that of simple childishness, in which some peculiarity or habit of the man's life becomes more accentuated, so that the anti-

quary and collector becomes a very magpie in collecting, or the domestic man becomes uxorious, only happy when surrounded and attended to by all his suffering family.

Age, then, in some families shows itself in brain-weakening in parent and child in direct line, or it may, by simple degeneration, produce various forms of mental disorder due to brain-ageing.

Other bodily diseases and disorders of function will be considered later in their relationships to mental symptoms. I have repeatedly expressed my belief in the fact that every disease has a nervous or mental aspect, and that it is but a question of degree whether a person is insane or not, whether, in fact, the disturbance of the nervous system by bodily disease is so slight as to be merely represented by pain, irritability, or general malaise, or whether it is more pronounced, assuming some form of recognised insanity.

Congenital defects of all kinds, but chiefly those of the senses, have a very distinct influence on the mental life of the individual. A person who is blind, deaf, and dumb is almost necessarily an idiot, though it is possible that with an enormous amount of trouble and special training, such an individual can be taught a considerable number of things through the common sensibility of the skin; but, as a rule, a being whose intelligence is starved by the obliteration or want of development of the senses will be but feeble-minded. The superintendents of deaf and dumb asylums confirm one's impression, that children who for years have been shut out to a very great extent from communion with the outer world are much below the average in intellect; and in fact I know that one of the greatest difficulties which these superintendents have to contend with is that a large number of those sent to them are practically without any

early education. They are perhaps eleven or twelve years of age, and have for that period been neglected, so that the animal side of their nature has developed without any controlling influence in proportion. I have had in Bethlem cases of insanity in the deaf and dumb, and have found such cases extremely difficult to influence. I would say that congenital sense defects tend to insanity and weak-mindedness, directly through a loss of knowledge, and indirectly as making a patient more keenly sensitive in other particulars.

This leads me to note, in passing, the influence of **bodily deformities** in the production of insanity. Anything which causes the thoughts and feelings of a patient to be concentrated upon himself is unhealthy, and any deformity has such a tendency. I can readily recall several such cases from among patients in Bethlem. One woman, who for years had been called the pig-faced woman, and who wore very thick veils to hide her facial peculiarities, at last became violent, and attacked people without reason. Another patient with peculiar formation of face (who by the way attributed her peculiarity to a fright her mother received from a bull) fancied people were shunning her; and it is comparatively common to meet with cases of sensitive young men who, because they have, or think they have, some facial peculiarity, withdraw themselves from the society of their fellows and endeavour to make up for the social life by a studious subjective one. Such cases not unfrequently develop some form of insanity with ideas of persecution or annoyance, and the patients so suffering fancy they are specially selected by society as butts.

No table would be complete without a provision for **unknown** and **unascertained causes**; for the outer world, not being very critical as to

symptoms, often mistakes the symptoms for the cause, so that we must be prepared for fresh exciting causes of insanity with every fresh scientific improvement, social disturbance, or political excitement. The telephone, the Salvation Army, or a change of Government, may each act as the last grain of sand which turns the balance, and the only moral I would draw from this is, that we ourselves must avoid being, like the lunatic, too ready to explain.

CHAPTER VI.

HYSTERIA AND ITS RELATIONSHIPS.

Hysteria in insane families—Hysteria as an early symptom of insanity—Hysteria alternating with insanity—Grave hysteria seen in asylums—Hystero-epilepsy—Neurasthenia and the Weir-Mitchell treatment.

As a branch of the nervous tree, **hysteria** must be here considered in some of its various relationships with other neuroses, but space will fail me fully to describe hysteria as it occurs ordinarily and in its simplest form. I shall, in considering this subject, refer to the graver forms of hysteria, to those forms which are to be seen in general hospitals or in asylums; cases which have, from some cause or another, been found to be intractable at home. The common feeling is one of regret that such cases are sent to asylums at all, and friends think that it is a mistake for such simple cases of nervous disorder to be sent to associate with the insane. Yet, as I shall point out, a certain number of such cases will die unless sent away from their old surroundings, and asylum treatment has often cured when general hospitals have failed. Every shade of nervous disorder, from the simplest emotional storm of laughter with tears, up to violent mania, may occur with what may be properly called hysteria. I find it difficult to draw any line between cases of simple mania with mischievous tendencies occurring in young nervous women, and cases which are classed as hysterical mania. There are many gradations between the simple and severe nerve-storms.

Simple hysteria is comparatively rare among the inmates of an asylum. It may seem somewhat paradoxical to say that hysteria is a branch of the nervous tree, and yet that in an asylum one rarely meets with hysterical fits; but frequently months may pass over without a single case of hysterical fits occurring among the one hundred and fifty to two hundred female patients in Bethlem.

The relationship of hysteria to insanity is manifold. In the first place *by origin*. The same parentage will produce insanity in one member of a family and hysteria in another, the hysterical person perhaps spending a long life without ever having more than severe attacks of hysteria, although exposed as nearly as possible to the same surroundings and influences as those which have produced insanity in a sister.

In the second place, hysteria may be *the earlier symptom of nervous disorder* which leads on to insanity, and I shall have to refer to cases in Bethlem who have suffered in various ways with hysteria, which has later developed into insanity.

In the third place, we may have ordinary cases of hysteria becoming *exceptionally troublesome*, and although these are still looked upon as cases of hysteria, yet they may require to be secluded.

With this introduction, I pass to the consideration of hysteria as it presents itself to those connected with asylums.

I think it unnecessary to offer a definition of what I mean by hysteria, as the examples given will serve best to portray the disorder, and I shall feel less hampered by having no definition to confine me.

Alternation of hysteria and insanity.—One woman admitted twice into Bethlem, on each occasion suffering from the most violent acute mania, had a history of hysterical paraplegia,

which had lasted for a considerable time before admission; the paraplegia passed off, to be succeeded by the acute mania. In another case there was an alternation in the symptoms, so that the girl, when maniacal, was able to do mischief, but when she became quiet, hysterical paraplegia rendered her powerless. Such cases as these are not very uncommon, and the history of their coming into an asylum is, that to the physical weakness which sent them to the hospital some moral perversions are added. Thus, a young married woman, a patient in a general hospital, was treated for some vague and ill-defined form of paraplegia. It was supposed to be hysterical by the physician under whose care she was placed. After a few weeks' residence she became discontented and troublesome, utterly regardless of truth, and with a loss of sense of what was right in other particulars: so that what with disturbing patients at night by her screaming, and stealing small articles, and causing additional confusion by her untruthfulness, she was considered unfit for the hospital, and was transferred to the asylum, where, after months of treatment, by means of galvanism and other stimulants, she was discharged recovered.

Other cases, in which hysteria is well marked, lose self-control and give vent to passion, or become mischievous and mendacious, and with a still further development of nervous weakness and instability, begin to imagine that people are bent upon injuring their character and reputation; or they may develop emotionally religious ideas, and get delusions as to the intentions of the curate or some member of their church. Such morbid developments are common enough, and show that in these, as in most other cases of mental disorder, insanity is a consistent growth. The symptoms develop themselves out of an unrestrained or ill-

regulated sexual passion, which disturbs first the emotional side of the character, and affects later the associated social relations, thereby destroying first the ideas of propriety as regards the sexes, and next the requirements of organised society regarding truth and honesty. Memory, sense-perception, and intellect may persist normally, though the patient rarely admits she has had knowledge of what she has said or done during the period of excitement; and in this I think may be found a useful means of distinguishing such cases from ordinary cases of mania, for the maniacal patient ordinarily has a memory of what has gone on around him, and on recovery is willing, even anxious, to recall or refer to what has taken place, while the hysterical woman will deny having any recollection of the past.

The senses may be perverted, and if they are, it is generally in the way that is noteworthy among the ordinarily hysterical. There may be hyperæsthesia of various regions, especially the region of the ovaries. Patients may have localised or widespread loss of common sensibility; the one half of the body may become anæsthetic, and I have known girls burn themselves unconsciously when in such a condition. In the case of one girl in Bethlem, who might be fairly placed in this group, a finger was eaten by rats without her withdrawing it from the hole in which she had placed it, and at the time she told me that she held it there for a man to kiss, and that she was not going to withdraw it while he was kissing it. In another case a girl introduced broken pieces of needles and pins between her eyelids, and when I was called to see her she at once accused me of having done it myself. There is, more rarely, loss of colour sense, and in some cases there is alteration in the auditory sense; and from the filthy

habits, such as the eating of fæces, developed by some cases, I believe the sense of taste and smell must be impaired. Hallucinations and illusions may be present, affecting chiefly the visual sense. In one young girl who had several attacks of insanity, associated with precocious sexual development, a habit of reading everything upside down was developed, and if a book were placed in the ordinary position she would pass into a convulsive state, which she said she could not help, but that the fit depended upon the book being placed, as she said, wrongly. This patient was, however, convinced of her delusion, if I may use the term, by the stratagem of asking her to write her name in a birthday-book, which she did correctly, and not inverted. All the manifold tales one hears of miracles, all the tales of ghosts, many of the instances of the thought-reader and spiritualist, are, in my opinion, the result of cases of hysterical insanity. The old idea that wherever any trouble was present there was sure to be a woman is confirmed, in my opinion, by the fact that whenever strange manifestations take place which are beyond the sphere of observation by our senses, there will be found a girl with hysterical or distinctly neurotic history.

But to continue: besides the comparatively harmless disturbances which may be produced in a family by the presence of an hysterical member, the patient may develop, either from religious motives or from some feeling of gastric uneasiness, ideas that it is wrong to take food. One girl will think she is commanded to take only bread and water; another, that bread is not intended, only water; another will think she is only to take food under very special conditions, so that, unless she has done a certain act or exercised a certain self-restraint, she is not entitled to eat,

some text of Scripture influencing her conduct. It may be necessary to send her to an asylum from sheer inability to keep her alive otherwise. As a rule such cases should be tried in every possible way at home, for although I believe the discipline and treatment of an asylum are extremely useful in such cases, yet the present feeling is that to have been in an asylum is a stain upon the character, and so for a young girl it is as well to do one's best before trying this last resource.

Food, warmth, exercise, and absence of friends are the first essentials, and next the ovarian or uterine trouble must be attended to. And here I would say that it is dangerous to have much done in the way of physical examination. If it be found that there is tenderness about the ovaries, a blister or leeches may be applied, in the inguinal regions, and the patient kept in bed for a short time. Dry cupping may be of service sometimes. Bed, however, is distinctly to be avoided as soon as any acute trouble has passed, for the characteristic of all hysterical cases is the tendency to laziness, want of will, and getting into bad habits. If it be necessary to feed a patient, it is well that it should be done with as little fuss and as much firmness as possible, the food being administered either by nose, by stomach-pump, or sometimes by rectum. In my experience I have found it well to vary the modes of feeding, so that the danger of getting into a habit is avoided. I have known a girl who required feeding in consequence of her weak physical condition, who became stout, and apparently in good physical health, yet, having been fed three times daily with beef-tea, wine, and similar foods, declined to assist herself in any way, and even rudely said to the doctors, "I know you must feed me, and I like giving you the bother." The proper treatment of such a girl is to give a

warning that now she is strong she will not require feeding, and for the next few days she may take or leave her food as she likes, and the chances are that after a severe hysterical storm she will take her food, and the habit will have been broken once for all. In some of these cases a liberal addition of salt to the beef-tea will create a thirst, which will cause the patient to take fluid food left in her way, and thus again the habit may be broken.

Besides the refusal of food in these cases, neglect of personal cleanliness is one of the most troublesome symptoms. I remember the time when the distinction between cases of hysterical paralysis and ordinary paralysis was considered to consist in the fact that the former did not foul their beds or clothes, whereas the latter could not help themselves; but now I look on any such dogma as worthless. For one sees many hysterical cases who are filthily dirty in their habits. So far, then, I think I have established the fact that there are cases which are distinctly hysterical, and yet which require to be sent to an asylum; in many such cases hospital treatment has failed. I am, however, quite unprepared to say what the direct brain causation may be. It has to be looked upon as functional disturbance, for lack of better knowledge.

Constantly cases are seen in hospitals and in private life in which grave hysterical symptoms have been but the precursor of some general physical breakdown, ending in death. There are, on the other hand, cases of comparatively coarse brain disease in which the only symptoms have been hysterical. I have seen the *post-mortem* examinations of several cases in which slight symptoms (all of which were referred to hysteria) were the only clinical evidences of serious disease in the anterior lobes of the brain. In one there was

adhesion between the two first frontal lobes, and in the second there was a firm condition of the whole of both frontal lobes, associated with a general fibrous excess. It does not follow that because in these two cases the frontal lobes alone were affected that hysteria is the natural outcome of disease of these areas. Such disease may in some way upset the balance or withdraw the control, and the result may be what we see, for hysteria, in many cases, may well be looked upon as an unrestrained exercise of the lower parts of the human organisation. Alterations in the anterior lobes alone will not produce hysteria. I have seen diseases in this region sometimes producing absolutely no traceable clinical symptom, or setting up epilepsy or some allied condition.

Hysteria usually occurs in women, but I have seen grave hysteria in young men; and though I have never met with true hemi-anæsthesia and paraplegia in hysterical young men, yet I have seen some cases of globus hystericus, so that the man passed from the condition of the hysterical girl into that of the hypochondriacal man.

Hysteria may colour other mental affections; that is, an exaggeration of any one of the perversions seen in hysteria may become a delusion. Thus, I am in the habit of regarding many of the pains and feelings of distress and anxiety, which are referred by the patients to their throats, to an exaggeration of the ordinary hysterical conditions, in the same way as I would interpret the false statements made by those patients that they had been raped, to an explanation of uneasy, unsatisfied feelings originating from the reproductive organs.

Hystero-epilepsy.—Besides the cases of simple, but grave, hysteria which have already been considered, others are admitted into asylums in which

the convulsive symptoms are those that call for most attention; cases, in fact, of hystero-epilepsy. I had two such cases in Bethlem; one in a man, who was conscious throughout the whole epileptic seizure, the other in a woman, who professed entire unconsciousness.

This latter was a single woman aged twenty-five, a dressmaker, with no history of insanity. She had suffered from hysteria, and had been for a time cataleptic, and was sent to a hospital for the treatment of her nervous disorder. She was transferred to Bethlem because she became destructive, was sleepless, and, at times, dangerous; she was always worse about the time of her menstrual periods. After admission she was quiet for nearly two months, then she had a severe fit; for a time she was cataleptic, then suddenly sprang on the attendant, knocked her down, and belaboured her severely. After this she became convulsed, but there was an organisation in the convulsive movements which was very striking, so that, at one time, she would grasp at an object within her reach, and at another time her convulsions would be in harmony with a tune that happened to be played on the piano at the time, her hands keeping time to the music: in her convulsions she bit anyone who came near her, or pulled their hair. At the time of the attack her pupils were contracted, and the conjunctiva less sensitive than normal. She had a most marvellous power of keeping her eyes open without winking, so that with the ophthalmoscope I watched the condition of her disc for over half an hour, during which time she never winked. The day after the fit she denied any recollection of what had happened, but complained of exhaustion. When in a fit she was placed either in a wet or dry pack, and later, with the onset of each fit, she was put into seclusion. When nearly

well, domestic grief caused her to have a relapse, from which she ultimately recovered, was discharged well, and for years maintained herself.

With both the hysterical and hystero-epileptic a grave responsibility is incurred, on account of their violence, though this violence is more frequently that of the tongue than of any more dangerous member. Yet friends will come in great alarm to know what is to be done with a young woman who either impulsively knocks her relatives about, or who threatens suicide.

A large proportion of these hysterical cases at the period of the emotional storms will say they will go and kill themselves, and occasionally they undoubtedly do attempt suicide. It is rarely necessary to send a girl to an asylum simply because she threatens to kill herself; I believe very few would do it under any circumstances, and such cases as these, by judicious supervision, may be quite as well treated at home as in an asylum.

There are cases in which disordered nervous function is exhibited by some motor or visceral disturbance. One hears occasionally of cases of "insane arms," cases in which malleation, as it has been called, is carried on, the patient constantly moving his arm up and down, as if using a hammer, at the rate of forty or fifty strokes a minute, and continuing the exhausting process for hours. Some such cases I have seen pass the borderland of hysteria, and claimed as belonging to insanity. With the insane stomach the same holds good. Patients may emaciate, and be reduced most rapidly to mere skeletons, through gastric disturbance associated with hysteria. I have known patients who appeared to vomit everything that was given them, for weeks; and the exhaustion produced by this hysterical vomiting was sufficient to turn the scale and start true insanity.

With all the symptoms that have been described associated with hysteria, hystero-epilepsy, and hysterical insanity, so called, there may be, and generally is, perversion of the functions of the ovaries. There may be amenorrhœa, dysmenorrhœa, or menorrhagia, and with these physical disorders there may be marked eroto-mania and tendency to masturbation.

Neurasthenia.—I cannot close this subject without referring to the Weir-Mitchell treatment of the so-called neurasthenic cases which Dr. Playfair so fully introduced into England. Patients who have slowly become chronic invalids have been by this method brought back not only to life but to active usefulness. The history and treatment of a case is as follows. A woman, generally single, or in some way not in a condition for performing her reproductive function, having suffered from some real or imagined trouble, or having passed through a phase of hypochondriasis of sexual character, and often being of a highly nervous stock, becomes the interesting invalid. She is surrounded by good and generally religious and sympathetic friends. She is pampered in every way. She may have lost her voice or the power of one limb. These temporary paralyses often pass off suddenly with a new doctor or a new drug; but, as a rule, they are replaced by some new neurosis. In the end the patient becomes bedridden, often refuses her food, or is capricious about it, taking strange things at odd times, or pretending to starve. Masturbation is not uncommon. The body wastes, and the face has a thin anxious look, not unlike that represented by Rossetti in many of his pictures of women. There is a hungry look about them which is striking. With the wasting, real loss of power follows. In such cases the patients must not be accused of malingering when they say they cannot

walk or sit up. If not vigorously treated they will die.

In treating such a case the following principles must be observed. Removal of the patient absolutely from all friends, and the personal supervision, in all but solitary confinement, of the patient by a skilled nurse. Rest is essential, in general in bed, and in pronounced cases for weeks. Massage is performed in a way resembling shampooing, twice daily, beginning with half an hour at a time, and gradually extending to two or two and a half hours twice daily. Milk in half-pint quantities must be given every hour or two hours, and strong beef-tea in similar quantities in the morning and afternoon. The muscles of the trunk and extremities must be not only individually rubbed, but also daily stimulated by electricity. Electric bath treatment and general hydrotherapeutics are useful. It will soon be found that, under this treatment, patients will develop ravenous appetites, and will take three full meat-meals daily, besides the milk and beef-tea. Stimulants should be given with the meals.

Dr. Sharkey, of St. Thomas's Hospital, has told me of cases who, after years of bed-ridden weakness, have been able to take horse exercise within three months; and of others in whom the gain in weight has been nearly one pound daily. In one of his cases, a woman of twenty-nine years of age weighed only four stone two pounds, and yet within a few months became stout and strong. If this treatment is to be followed, no half measures must be taken. Removal, seclusion, massage, and feeding, are the means of cure, and they must be made use of not separately, but all combined.

CHAPTER VII.

ACUTE MANIA.

Maniacal conditions—Mania as a stage in mental disorder—Bodily symptoms—Mental symptoms—Course and varieties—Results.

Acute mania is a form of mental disorder of variable intensity and duration, in which loss of control of the various constituents of mind is the most marked characteristic. No more precise definition will cover all the cases I shall have to consider in this group.

Acute mania (1) may be the whole of the disordered process.

(2) It may be part of a more complex form of insanity. Thus it may be a stage in recurrent mania, or in *folie circulaire*.

(3) It may be a symptom of a more serious disease, such as general paralysis of the insane.

(4) It may be a concomitant of epilepsy following or replacing a fit.

(5) It may be the further development of a delirium due to fever or alcohol.

(6) It may replace some other neurosis, such as asthma or hysteria.

GENERAL SYMPTOMS OF MANIA.

Bodily symptoms.—In acute mania the patient generally loses flesh, the circulation is weak, so that pulse tracings are often very feeble, often the pulse-rate is quickened, the blood-pressure diminished, the complexion sallow, the tongue slightly tremulous, flabby, and with a tendency to white fur, the breath often rather foul, the appetite, at

first impaired, becomes variable, capricious, and unnatural, and may later, if the patient be passing into a more chronic state, become almost insatiable. The bowels are usually confined, the urine is normal as to constituents, but may be diminished in quantity, or occasionally, in some of the slighter cases allied to hysteria, it may be of low specific gravity and abundant.

In women menstruation is generally absent. In both sexes there is frequently eroticism. The patient is restless by day, and sleepless by night; frequently he objects to wear any clothes, and I have often found some change in common sensibility. There is rarely hyperæsthesia; more commonly, local or general loss of feeling exists. In one case I have seen general tenderness in all the bones of the body, so that either steady or sudden pressure upon a bone produced shrieking and signs of pain, and this occurred whether the patient's attention was occupied or not. He shrieked suddenly if his shin were pressed under the bed-clothes.

A good deal has been said of the aspect of the maniac, who is supposed always to have wild staring eyes, a harsh raucous voice, and a peculiar mousy smell; not one of these is characteristic. The eyes have nothing special in their appearance, the pupils being dilated and sluggish in the majority of young active cases, pointing to the mania as a condition of physical weakness, not one of any inflammation of the brain or its membranes. The voice may be raucous from over-exercise, and the smell may be mousy from constant sweating, due to severe continued exercise and dirty habits. The hair, at times, assumes what has been called an electrical condition. We have had patients in Bethlem whose attacks of recurrent mania were always associated with the hair becoming stiff, dry,

and wiry; and, undoubtedly, nutritional changes may occur in each fresh attack of mania. Shedding of the nails after acute mania has been recorded. The maniac is generally credited with a large amount of physical power; but although one

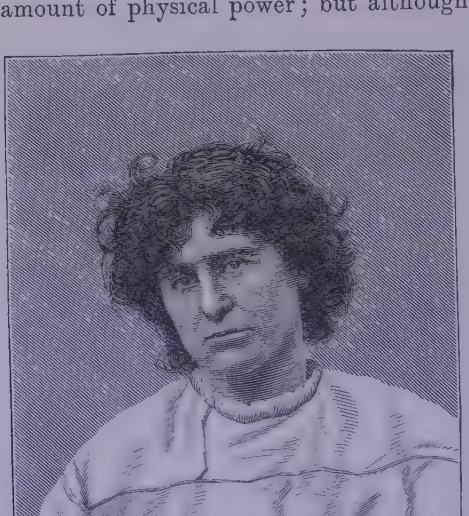

Fig. 1.—Case of simple acute mania.

is now and again astonished at some feat of unusual strength, I have failed to satisfy myself that there is ever any unnatural power in the patients. They may have the appearance of possessing extra force from the fact that they have often singleness of purpose, which concentrates all their energies on one object; for, although the acute maniac is, by

definition, a person weak of will, yet we constantly meet with cases in which either a repetition of certain hallucinations, or the persistence of some delusion, acts as a fresh stimulant to exercise in a fixed line. Though maniacs are not physically stronger than the sane, one must admit in some cases a power of endurance which is astonishing. A weak woman, for example, will day after day, and night after night, talk, scream, and gesticulate, at the same time taking little or no nourishment.

Mental symptoms.—Under bodily symptoms we have noticed the fact that there may be changes in sensibility, and this is seen in different ways. Thus, a patient may appear not to feel, being so much occupied by his delusions or by the fury of his excitement; but, in other cases, there is, undoubtedly, loss of feeling in parts of the skin; and besides this, certainly perverted feeling is very common, so that the patient complains of itching or hallucinations, imagining that people tear or scrape his body. In two cases the patients fancied that their bodies had swollen inordinately. They gazed at their limbs with horror, fancying that soon they would be too big to remain in the house. In one of these the result was great violence, because the patient fancied that he would, by his great bodily increase, be crushed to death, as the walls of his bedroom would not expand to his necessities.

Hallucinations.—Although the appearance of the eye-balls may be natural, every variety of hallucination and illusion may affect the sense of sight. The person suffering from delirious mania frequently sees spectral images, insects, or vermin, very much after the fashion of the fever patient; the acute maniac is likely to be troublesome at night, from hallucinations of one kind or another.

He may see his near relatives, sparks and flashes of light, or a succession of figures like a panorama. The sights, as a rule, are constantly changing, the condition of mania being a mobile one.

Hallucinations of hearing are common, the

Fig. 2.—Case of acute mania.

patient hearing the voices of his old comrades, or those of his relations. Many of the actions of the acute maniac depend on the hallucinations of hearing. Besides "voices," there may for some time have been sounds, drummings, thumpings, or ringing of bells, or the repetition of musical notes, which may have been considered by the patient either as communications from his friends, or else as things done to annoy and disturb him.

Hallucinations of taste and smell may occur, the idea most commonly being that some filthy or poisonous gases are being used to injure, or that poison or filth is being mixed with the food. Hallucinations of this kind may prevent the patient

Fig. 3.—Case of chronic mania.

from taking his food. There may also be *illusions*, false perceptions (*see* p. 253) of the senses. Mistakes of identity in particular are common, the patient calling those around by strange names.

Next to sense perversions, I have to refer more fully to the condition of the *memory* in acute mania. In the more severe cases of delirious

mania, as in cases of acute primary dementia and cases of melancholy with stupor, there may be complete loss of memory, so that the patient, after days or weeks of incoherent noisy restlessness, wakes up to find himself in an asylum; and is often angry at his situation, and cannot be persuaded that he at any time has required such detention. There is in such cases a period of mental soreness after the excitement has passed, in which everything seems to affect the patient painfully, and he looks upon the actions of his friends as injurious and unkind. The memory of the attack, on the other hand, may be slightly altered or masked, so that the condition resembles that which most persons have experienced in dreams; a feeling that something has happened which, at first, was difficult to recall, but which, when once the thread has been found, may be readily followed up.

It is well here to recognise the fact that the memories of some of the emotionally insane are not trustworthy, and that patients who have passed through an attack of insanity will often be ready to give full details of their experiences, but these experiences are not reliable. They develop romantic histories from their inner consciousness. The memory of the attack may, however, be clear and precise, and it is well to remember this, for patients are keenly alive to what is said of them while they are insane. I have known them in Bethlem deeply wounded by the ignorant commiseration of a visitor to the wards, who with all kindness has said, "Poor things! how very wretched it makes me to see them!" And I have had lessons myself when convalescent patients have told me that they remembered a somewhat harsh expression or thoughtless word used in reference to their cases.

Another important point to be noted concern-

ing the memory of persons suffering from mania is, that sometimes there is a kind of double consciousness, the patient's memory during each recurrence of mania having chiefly to do with the acts and feelings of the previous attack of insanity. Thus, a patient who was treated by me with hyoscyamine during a first violent attack of insanity, took a great dislike to me, in consequence, I believe, of the powerfully unpleasant feelings produced by that drug. She recovered, and for some time was not only passively but actively grateful for the kindness shown her; but no soooner was she again affected with mania than she regained her hatred of me, and her first act on re-admission was to crush my hat over my eyes and call me "poisoner."

Imagination, probably, is the most attractive side of mania. The poet, the actor, and the artist all look upon the lunatic as an imaginative being. The superintendent of an asylum regards the imagination of the lunatic in quite another way: he meets with comparatively little really brilliant imagination. The chief points to be noticed are that maniacs do not think along strictly conventional lines; that they have often lost all fear of being thought odd or singular, together with all finer appreciation of the proprieties of society, and will say things painful or vulgar without compunction. Thoughts seem to run riot, and in the rapid flow of words strange associations are made. The imagination of the maniac is incoherent, undesigned and uncontrolled. He lets his ideas arrange themselves according as they are started by impressions made from without upon one sense or another. The aspect of the patient points at times to a state allied to poetic ecstasy, and after his recovery he may tell you of strange dream-like experiences.

Connected with this subject is the condition of rapid verbal association, punning, and verse-making. In mania one is able to trace the way in which ideas and words are linked together in the mind; in fact, the study of speech, in acute mania, teaches much about the mode of association of ideas. There are two distinct methods of combination, the verbal and the ideational, so that one patient, hearing a tinkle of a bell, at once begins rhyming with words like "bell, tell, fell, knell and hell." Another, seeing a ring upon one's finger, rapidly passes from ring to fling and sing, with many more verbal associations. But another way of association is by similarity of ideas, so that a person's name suggesting a fish, the patient rapidly passes from whelks to oysters, shell-fish, garden-snails, and fishery exhibitions. Probably the most common is to have a combination of both methods, as when a woman, seeing a hat, instantly said cat, mouse-trap, kittens, the association being first hat and cat verbal, and next mouse-trap and kittens, ideational.

It would be wrong to say we do not meet with poetic imagination among the acutely maniacal. For example, a patient who associated all her ideas of moral qualities with colour was brilliantly imaginative. Everything that was good and pure was white and upright or straight, perfection to her mind being a square of perfect whiteness. Unfortunately she looked upon me as a black round. She was consistent in all her speech, and hardly ever made a mistake when qualifying acts by means of the use of colour. Occasionally patients are given to imaginative drawing, while others produce verses by the hundred; but, generally, both drawing and poetry are very bad.

The consideration of imagination and of the rapid but altered association of ideas naturally

leads me to what is called *incoherence*. It is not every maniac who is really incoherent; the apparent incoherence is due to our want of knowledge of the connecting links of thought, in fact of our ignorance of the method of thought-building going on in the patient's mind. As in dreams the most extraordinary jumble of ideas may appear before us without impressing us with the slightest sense of incongruity, so with the person suffering from mania there may be a similar condition. To the patient himself there is generally a pretty definite interpretation of what passes in his mind, and generally, I think, the incoherence is to be looked upon as evidence of rapid change of idea rather than a succession of perfectly isolated and disconnected thoughts. Just as the traveller, resting above the clouds on a mountain top, sees peak beyond peak reaching above the impenetrable sea of cloud, the peaks alone being visible, yet as he knows that deep down below the obscuring cloud lie the foundations of the mountains whose summits alone are visible, so we remember in our dreams but a few of the things that have passed through our minds, the connecting ideas having vanished. A similar state exists in mania.

One man could see a connection between Sir James Simpson and a second Saviour; and the idea was evolved thus: As Christ came into the world to pay the debt of sin, but did not abolish the penalty of suffering, and as now Simpson and the discovery of chloroform have practically annulled suffering, someone must bear the weight of the penalty.

One of the chief characteristics of incoherence and of dream-thought is that both are stimulated by sense-impressions without any intermediate thought-action. They are thought-reflexes, if I may use the term. Just as, when asleep, the

slightest exposure of a limb to cold, by a shifting of the bed-clothes, may start a whole series of thoughts about skating, the Alps, or an Arctic expedition, to be suddenly changed into the fall from a precipice suggested by some slight change in the position, so, in the insane, a sense-impression suddenly turns aside the flow of thought into another and unexpected channel.

Incoherence of the type just described is a chief feature of mania. Fixed delusive conceptions and ideas that have been called monomanias do not belong to this condition. It may be considered that the feeling of contentment, of well-being, of power and wealth, which the patient suffering from mania often possesses, belongs to the imaginative side. It is, however, hard to understand how the fever of thought should be associated with a feeling of satisfaction; but one constantly finds acute cases perfectly satisfied with their mental condition. I have scarcely, if ever, met a person suffering from mania who in the least appreciated his state. This feeling of satisfaction may give rise to the nearest approach to fixed delusions. Thus, a young fellow who, without having any opportunities for enjoying life, as it is called, has long looked upon the stage as a haven of license and a pleasure to be ardently desired, when he becomes maniacal imagines he is the most gifted of actors; and it is not uncommon to receive such cases into the hospital after they have caused annoyance at one theatre or another by the persistence of their endeavours to obtain engagements. This feeling of personal worth may become the one most prominent delusion, and may really be a serious drawback to recovery. The feeling of power may be associated with one of changed personality, the patients imagining they are royal or heroic. And here the strange associa-

tion of ideas again works, so that a Reginald thinks himself born to be a king, and a John Charles considers himself to be a successor of the Stuarts.

As far as judgment is concerned, it is difficult to say that maniacal patients are without power of judging; but one of the most characteristic symptoms of such cases is the inability to weigh justly their surroundings and their companions. It is, therefore, common for us to have two patients at a time, who agree in nothing but the belief that every patient in the asylum is there unjustly; or that those who are acting peculiarly are doing so in order to remain in the asylum; or else they see absolutely nothing singular in the strangest and wildest excitement in others. At the same time, their judgment on other things may be correct; they may be able to play chess, or discuss politics. One patient in Bethlem, who was as dangerous as a man could be, and full of insane ideas, was yet able to play his rubber, to fence, and to chat reasonably.

The will, being the balance of motive, is uncertain, and not to be calculated upon, the only thing marked about it being its changeableness. The person with acute mania, unless haunted by some more persistent hallucinations than usual, is as changeable in his will as he is incoherent in his speech. Mania is a condition of bodily weakness, as I have said, and the man is below par; so, mentally, his faculties are unstable and not to be depended upon. There is no steady purpose, but instability with emotional display: like the child and the old man, he is ready for laughter or for tears. Passion of all kinds is easily stimulated, but satisfaction rarely follows. As one might expect, the weak man is irritable, nervous, and cowardly; and, with all the threats which are

heard in an asylum, it is rare for the acute maniac to engage in an open attack upon his fellows.

So far, then, we have passed in review the symptoms, bodily and mental, which are grouped together in the class "mania."

Probably no one case exhibits all these symptoms, but all are directly connected with a condition of nervous instability.

VARIETIES OF ACUTE MANIA.

I shall now describe the more common varieties which occur in this group.

First, simple acute mania may be divided according to whether the symptoms most affect the **intellectual** or the **moral** (I had almost said organic) side of the patient. I shall consider cases of the latter variety first, because they are so near in many respects to ordinary cases of eccentricity.

1. **Acute mania which chiefly affects the moral faculties.**—The cases such as those now under review are probably the cause of more family worry and distress than any others; and the reason is that the friends cannot recognise the slighter symptoms of insanity. It is common for me to hear the friends of such patients say, "I believe it is badness in my relation, and I have done everything in my power to knock it out of him." The one characteristic of the disorder is complete moral perversion. This, however, does not necessarily imply open acts of licentious immorality; but it connotes change in disposition, habits, and manner of thought quite out of relationship to the education and surroundings of the patient. In one case the patient always showed evidence of an approaching attack of insanity by changing his religious creed, and by seeking some new spiritual guide. Later he threw off all religious ideas, and gave himself up to sensual indulgence. In another

case, a man who for nearly half a century had held an important position in a public office, who had been a bright and shining light of English middle-class society, and a representative of respectable Dissent, took to visiting public-house bars, making love to barmaids, and indulging in cocktails and cigars in a way which scandalised his religious friends. One was bound to admit that this man, whose memory remained perfectly good, whose judgment upon his own professional subjects was unimpaired, and who was not unreasonable or unreasoning, was nevertheless temporarily changed, and that the change was the result of brain disease of some sort, which, having passed away, left him as well as ever, and regretful of the short period of loss of self-control. At no time during the attack did he become what is ordinarily called maniacal.

Such cases occur among women as well as men. Take, for instance, a woman a little past middle life, who becomes fidgety, over-meddlesome, and generous; she is anxious to make garments for all the poor children of the metropolis. Her lodgings became a receptacle for a motley collection of what would ordinarily be considered by her to be rubbish. Now she prizes the heap of gaudy rags, and is full of the schemes by which she is to make clothes for some and get money for others by means of a bazaar. In the asylum she begins to collect everything—rags, paper, bones, pins, bits of glass, soup-tins—in fact, anything that can be found. This period of collecting is associated with a coquettish manner, distinct ideas of being good-looking, and the possibility of getting a husband. There is irritability, and there are complaints almost daily against one attendant or another. She does not sleep well, and has more ailments than the hypochondriac. Her state of disturbance

having lasted for several months, she slowly becomes herself again, resumes her quiet orderly life, and ceases to have any special mission among the poor. The cases that are most troublesome to manage are those which periodically take to drink, the danger being that the drink may tend further to establish mental unsoundness; for most cases of insanity of this kind are recurrent, and I am inclined to think that many of them have strong nervous inheritance, that, in fact, they might by some writers be looked upon as cases of hereditary insanity exhibiting the moral perversion common in this group.

2. **Acute mania in which the intellectual faculties are chiefly affected.**—This, in fact, is "acute mania" as ordinarily understood. There is nothing special in the causation of this disorder. Anything that has already been considered as predisposing and exciting causes may act in the production of this form of insanity. As remarked in discussing the last subject, maniacal conditions are those of physical restlessness, and the symptoms have already been described in the general introduction to this chapter.

Acute mania occurs mostly at the periods of adult and mature life. It may, however, take place at either extreme, so that I have seen cases of children—one, in fact, only four years old—who were suffering from an attack of acute mania, as evidenced by restlessness, sleeplessness, excitement, objectless destructiveness, great irritability, and vicious propensities, associated also with perversions of sense and depraved appetite. I have been consulted about one case on the verge of ninety, who was maniacal then for the first time in his life; so at the other extreme of life one may meet with acute mania, either primary, if I may so use the term, that is, coming on

without any previous well-marked signs of mental degradation, or occurring as the consequence of brain-wasting, or alteration of some kind in the nutrition of the nervous centres. Nearly always acute mania is preceded by a period of mental depression and sleeplessness. These symptoms are associated with epigastric uneasiness; the patient for some days or weeks feels unable to fulfil his ordinary duties, he complains of lassitude, and his friends think he is becoming hypochondriacal. He frequently takes to drugging himself with narcotics, tonics, or purgatives. This period, as I have said, may be of very variable length, so that in one patient it is short and of slight intensity, and in another the entire stage may be mistaken for one of profound melancholia, till a sudden outburst of mania follows, and shows the melancholia to have been but the initial process of a maniacal attack.

It is not necessary here to point out all the varieties of uneasy melancholic and hypochondriacal feelings which may precede an attack of mania. The patient often takes to drink at this period. The excitement may develop itself slowly, or may burst out quite suddenly, a very slight cause of excitement determining the explosion. With this there is, as a rule, no increase of temperature, and, except during the acts of violence, there is but slight increase in the rate of the pulse or respiration; the face loses colour and becomes sallow and anxious-looking. There is often loss of appetite and constipation; the tongue may be moist and tremulous—and here it may be noticed that tongue-tremor is not characteristic of general paralysis, for, in my experience, more tremulousness is met with in early acute mania than even in early general paralysis.

The attack of mania may be a continuous

one, the symptoms varying slightly from day to day, the thoughts following rapidly, apparently unconnectedly, but set in motion, as we have already seen, by impressions from without. Violence towards others may be present, but generally the maniacal patient is not the one who is to be dreaded, as he is more like a passionate child than a dangerous being. He may be stirred to violence with his tongue, and impulsively destroy property; but in my experience he is rather cowardly than otherwise. The destructiveness is most marked in reference to his clothes, bedding, and things connected with his meals. Attacks on others may be made by a patient suffering from acute mania in consequence of false ideas. He may believe that, being of great importance in the world, his detention in an asylum is withholding him from the pleasures and duties of his position; or he may be affected by hallucinations, so that he may be convinced that it is his duty to injure this person or the other whom he believes to be a criminal or an evil spirit. The safeguard, however, is that these patients are usually unable to combine in any way, and that they give sufficient warning as to what they propose doing. An attack of acute insanity of this kind may continue for weeks and months together, and no treatment will be found to have any good effect in cutting short the attack.

A young Greek girl was admitted to Bethlem who, after having had an attack of mental depression, was suffering from the most violent acute mania it is possible to conceive. In her case, which I may take as an example, every variety of treatment was followed without any good results, but in the end she again passed into a condition of mental depression, and then recovered, to die some years afterwards of phthisis. She was a girl of good general education, of strikingly handsome

appearance, but she rapidly passed from plumpness to a condition of extreme meagreness. She seemed to be able to do without rest by day or night; she chattered and sang; she destroyed all her clothes, and would break anything that came in her way; and she had to be clad specially in a kind of combined garment because she was constantly in the habit of standing on her head in doing what is called the "Catherine wheel" of the streets. She was treated with narcotics of every description, morphia, opium, belladonna, conium, chloral, camphor, bromide of potassium; counter-irritation was tried, the wet pack and the dry pack, seclusion, abundance of stimulants, chloroform for hours daily, and yet the disordered process seemed in no way to be hindered. This serves as a good example of what has become the creed of the older asylum attendants, that an acute attack of mania is a process which has to be passed through, and that the best thing to be done is to guide and not interfere with it. In this case the process was a steady one.

I would say that the more prolonged the initial melancholic stage is, the longer the second stage of excitement is likely to be, the longer these two the less hopeful the prognosis, and the greater the amount of excitement the greater is the tendency for the patient to pass into a condition of mental depression afterwards. This depression may be of two kinds, simple exhaustion of the nervous centres, as seen in partial weak-mindedness, or depression of the melancholic type.

Other cases exhibit a peculiar rhythmic process in recovery. Patients have attacks of violence, succeeded by periods of health or depression, succeeded again by periods of excitement, followed by others of depression. This process may last for a considerable time, and then the attacks of

mental disorder may become shorter and shorter, till at last a condition of health is regained. These cases I compare to the swing of a pendulum, and I have shown how the swing of the pendulum through an arc of excitement is followed by a swing through an arc of depression; and as the stability increased, the movement was through shorter arcs of disturbance, till at last stability was re-established.

Besides the above ways, cure may be sudden, and this unexpected cure may be accidental or natural. Thus, every year one has cases of insane patients who have recovered their mental balance as the result of a physical illness. One patient gets an attack of erysipelas or pneumonia and his mind clears; another gets an attack of neuralgia, or has a gum-boil, causing swollen face and much pain, and he recovers. Similar bodily disorders may produce similar results in the melancholic as well as in the maniacal. The explanation of this phenomenon is still quite obscure, and opens up an important field of inquiry. In certain cases of acute mania cure is reported to have been brought about by the production of an abscess by subcutaneous injection of turpentine, and the procedure is accompanied by a considerable numerical increase of leucocytes in the blood-count.

Certain cases get well only to relapse, and one of the most important questions is not merely the prognosis of the immediate attack, but the prognosis as to recurrence. Simple acute mania is a disorder which is very likely to recur if it make its appearance in a family known to be neurotic. The prognosis, too, is worse after each recurrence, and it is also made more grave when slight physical or moral disturbances, such as are certain to recur, can be shown to be the causes. Thus, a patient whose attacks were started by child-birth or other

physiological process, is likely to have recurrences; and, as I have said, each recurrence makes the prognosis worse. For although it does not follow that a patient who has had six or eight attacks should not recover from any more, yet the chances are that she will to the end of her life be subject to recurrences upon the slightest provocation, and that her children (if she have any) will be of the most unstable nervous type. Thus, in the case of a woman who, herself being of nervous family, had two children, and with each child an attack of insanity, one of these children became a lunatic and was subject to recurrent attacks of acute mania, till she became permanently altered in her mental life, and will remain for the rest of her days an eccentric emotional person, liable to outbreaks of acute violence, while the other was a sufferer from every variety of hysterical trouble.

It is noteworthy that persons with strong nervous inheritance sometimes pass through a series of nerve storms with comparatively little damage to their intellects, while others, less nervous, suffer much more severely from single attacks. Thus, one patient in Bethlem, who was subject for years to recurrences of most violent acute mania, maintained in the intervals an extraordinary amount of mental vigour. She belonged to a family in which nervous disease was common.

A large number of cases of acute mania recover from their first attacks, and I would further say that cures may be perfect, so that the patient becomes as sane and reasonable as ever he was in his life. The result, however, of mania may be less satisfactory. A patient, after having had an acute attack of mania, may be morally damaged, so that he takes to evil ways. I fear that the friends of patients occasionally attribute such moral perversion to the associations and companionships of an

asylum. Young cases suffer specially in this way. I would rather not admit lads into Bethlem, because however careful one may be, they are specially apt to learn evil from their elders; the cases to which I am now referring are more particularly liable to this contamination. They have lost a great deal of mental vigour; the acute attack has weakened their judgment and impaired their intellect, allowing their lower animal side to have more power than is good. Such cases, then, after an attack of acute mania, especially when they have been treated in a general asylum, may, though discharged recovered, be looked upon as going with a moral limp. After discharge they frequently decline to follow their old vocation, and become a burden to their friends. This is not all, for they often give way to drink and to other excesses, and not uncommonly pass into the criminal classes.

Besides this moral perversion which may follow an attack of mania, some intellectual peculiarity may be the scar which is left, and the patient, quitting the asylum recovered from his acute attack, has now some habit which for the rest of his life stamps him as an eccentric. He may be solitary, penurious, given to odd ways of dressing and of living; he may be in the habit of talking to himself, or he may have some one special delusion, which he keeps out of sight of the ordinary friend, but which nevertheless influences the rest of his life.

When later writing about the so-called cases of monomania, I shall point out that most of these have passed through mental storms, and that the extraordinary delusions are but the result of these acute attacks. Acute mania may be succeeded by any one of the many varieties of weak-mindedness, so that the stage of dementia which is common after the acute attack may persist and leave the

patient in a state of second childhood; or it may leave him fairly well-behaved and fairly active, but with his whole intellectual being reduced to a lower level, so that the man who was a leading barrister may now be contented with a supply of drawing materials, with which he passes his time in making hideous copies from the illustrated papers. Another man, at one time an officer in the army, was content to polish pebbles against the wall, in the hope thereby of getting a cigar or a little tobacco from a visitor in return for his gems, while others become hewers of wood and drawers of water to an asylum. Another instance is that of an old bank clerk who cleaned the floors and fetched the meals, having no longer any wish to return to his former occupation.

Another and more troublesome result of acute mania may be that the patient passes into a state of chronic noisy incoherence, chattering the whole day long, generally in an aggrieved way or with threatening and abusive language. Every asylum has cases of this kind, in which there is a special sort of logorrhœa, the association of ideas being often utterly untraceable. No condition of brain has as yet been known to correspond with this condition of chronic mania.

Under the head of acute delirious mania we shall see that death is not an uncommon sequel to the disorder; but in simple acute mania it is not nearly so common to meet with fatal results. We see acute mania ending fatally when associated with some other bodily disease or injury; and from time to time we meet with cases that die from the excitement of mania. Such cases have gone on talking, raving, and destroying day and night; they may have taken food freely, but in spite of this they have steadily lost ground, and at length have died.

Prognosis.—The prognosis in all cases of acute mania, then, must be guarded; and I would say that any case of acute mania, in which excitement was great, sleeplessness well marked, food either not taken at all or not assimilated, must be regarded as dangerous, especially in young and old persons. I have seen several cases of elderly women dying comparatively suddenly; they have been excited for weeks after the attack of mania; then, becoming quiet, they have sunk and died.

Acute mania recovering by degrees and with remissions.—Reginald N., single, 22, admitted October, student, first attack of insanity, no nervous inheritance; the causes of this outbreak were overstudy, and disappointment with change in his prospects.

The first symptoms were restless irritability, a ravenous appetite, and false ideas as to his father's wealth and position. He was loquacious, believed he would be a hero, and that he could write as well as Shelley. He became extravagant and witty. There was more brilliancy than one ordinarily sees in mania. He asked me for a definition of acute mania, and answered it himself by saying, "It is believing yourself to be a boxing man, and proving it to demonstration;" he also referred to the analysis of emotions as a filthy process. Within a few days of his admission he became quiet, tidy, and well-behaved; but this lasted only a week, after which he became as noisy as ever; by November 3rd he was removed to a convalescent gallery, only to be sent in ten days to the refractory ward again. For the next few weeks he varied, for a few days being quiet, and then again breaking out with all his old violence. In one attack his violence was extreme, and hyoscyamine was tried in vain. After this he slowly recovered, and was discharged.

Acute mania, rapid recovery.—Elizabeth W., married, age 34, three children, youngest 19 months old. No insane inheritance. Had suffered from rheumatic fever; was said to have had incipient phthisis. The cause of her mental state was supposed to be pecuniary trouble and domestic anxiety. Her husband was intemperate, and frightened her while he was suffering from delirium tremens. She was admitted to Bethlem on January 23rd; her first symptoms were violent emotional disturbance, which began four days before admission. She became restless, and refused food. She was incoherent in speech and in ideas, and her movements were wild and uncontrolled. She was sleepless; she said she was Jesus Christ at one moment, and that she was dead the next.

On admission she was extremely thin and anæmic; she talked in a rambling way, her eyes were bright, pupils large, hair rough and semi-erect; she gesticulated and moved her fingers and hands in a rhythmic way. She made rhymes; she passed her urine and fæces under her. Pulse 120, temperature 100·4°.

The temperature soon fell to 99°, though there was very little change in any other symptom for some days. She refused all food.

By January 30th she was reported as more quiet, and as taking her food, but still very weak.

February 4th.—She said that the day before she suddenly awoke to herself, and wondered where she was and why; she said she had lost recollection of much of the past few weeks.

February 15th.—Still weak, but progressing favourably. After being tried with change of air and leave of absence, she was discharged well on March 26th.

Mania may be *part of the insane process*, and not the whole. Thus, it may alternate with

melancholia ("alternating insanity"), or, as in the so-called *folie circulaire*, mania is succeeded by melancholia, to be again succeeded by a period of health. There is nothing special in the attack of mania, it being characterised by the usual bodily and mental disturbances which we have already described. The periods of excitement are not of absolutely equal length, and the relationships between the periods of depression and those of excitement vary. In my experience this form of mental disorder is extremely rare in England. I am used to cases of mania and melancholia recurring at irregular intervals, in which the end is mental destruction; but the establishment of a regular process of recurrent periods, such as described, is rare.

Folie circulaire, as described, is a mental disorder most frequently met with in women, coming on often soon after puberty, and rarely cured, in which a period of excitement is followed by a period of rest and of melancholy, the three stages following each other in any order, in most cases probably the depression coming first, followed by mania, and this by a period of health, or at least of comparative health. Patients suffering from this disorder are said rarely to be quite themselves even at their best. I have seen many cases in which there have been cycles of this kind, but the periods of depression or of weak-mindedness became longer and longer, while the stages of health were restricted till in the end mental weakness resulted.

In reference to "maniacal depressive" insanity (p. 206) it will be noted that these alternating and circular states are regarded by those who describe this condition as merely phases of the disease "mania-melancholia," and as such no particular emphasis is laid upon them.

Mania may be the first or one of the earlier symptoms of *general paralysis of the insane*. In some cases the mania appears suddenly; but I consider, as a rule, that in such cases the way has been paved for the outbreak of excitement by antecedent degeneration, and that in this respect they resemble others to which I have referred as cases of acute excitement following chronic brain change. The acute mania of general paralysis may be preceded by the ordinary melancholic period often assuming a markedly hypochondriacal type. The attack of mania may be of short duration, and leave the patient profoundly altered, as far as his mental abilities are concerned, but yet with little appearance of physical illness. Attacks of mania may appear from time to time in the progress of general paralysis, each attack tending rapidly to mental destruction. There are no special characteristics to enable one at once to diagnose the mania of general paralysis from that due to other causes. The diagnosis must be made from the physical conditions and symptoms.

Mania may be associated with *epilepsy*, it may precede the epilepsy, or take the place of a fit; but more commonly the patient, after a fit of convulsions with unconsciousness, becomes quite suddenly violent. Such cases are among the most dangerous possible, as the outbreaks of destructive violence come on as suddenly as do the fits themselves. Thus, some years ago, I saw the wife of a publican who was said to have had an attack of apoplexy some little time before. There was no doubt she had been strange in habits and manner, and that she had lost consciousness at times; these losses of consciousness were, however, looked upon as simple fainting fits, until she had a very severe attack of convulsions, affecting one side, when it was supposed she was suffering from a fit of

apoplexy, but to the astonishment of her friends and the doctor, she suddenly recovered consciousness after sleep, and became violent and destructive. When first called I found her unconscious and breathing stertorously, with clonic convulsions of the left side, and with only the history given me by friends that she had an attack of paralysis. On the first occasion I had been misled into the idea that this kind of attack was an apoplectic seizure, and prescribed accordingly. Next day I was suddenly summoned to find her in the wildest state of excitement, rushing about her house, breaking the ornaments, and abusing her servants and relations. This period of excitement lasted nearly two days, after which she was again herself. On another occasion, somewhat later, she had a similar fit; but having learnt by experience the nature of the seizure, I prescribed a full dose of chloral hydrate whilst she was still unconscious, the result being that she slept continuously for about twenty-four hours, and when she awoke she was free from mania. When succeeding attacks took place she was sometimes tried with chloral, and sometimes without, but always became maniacal if the drug were withheld.

Cases of this kind are common enough in the larger county asylums. There are cases in which a large amount of purposive action may take place, and serious injury may be done, and yet the patient may be without the faintest recollection of what has taken place during the period of violence. That crime has been committed by patients during a state of epileptic *furor* I have no doubt, crimes, too, of a most brutal and devilish kind. The perpetrator of some brutal murder may apparently have taken care to secure his victim, and to hide his crime, but yet there is a complete ignorance of all that has hap-

pened. He may impress the jury unfavourably by his apparent indifference, and by his denial of any knowledge of what took place, although it is clearly proved that he appeared to see and avoid witnesses. But one of the most striking things about epilepsy is the complete loss of continuity of thought, which so generally occurs both in the graver and in the slighter attacks of epilepsy.

In a later chapter the relations of epilepsy to insanity will be fully considered; but before leaving the subject I will repeat that the mania following epilepsy may be of the most violent, destructive, impulsive character, and that, unlike ordinary mania, it leaves not even a perverted memory behind.

As one of the greatest difficulties lies in distinguishing between acute mania and acute delirium, I must call attention to the fact that *delirium may pass into mania;* this occurs most frequently in persons with direct insane inheritance.

Thus I have seen attacks of acute mania follow the delirium of fevers, acute alcoholism, and the delirium resulting from belladonna, and from the administration of chloroform.

Acute mania may take the place of hysteria or of spasmodic asthma, and I shall not be surprised to meet with other conditions, such as angina and hypochondriasis, which may prove to be equivalents of a maniacal nerve storm.

Treatment.—In addition to the indications given on p. 116, it may be stated that, although some alienists still are satisfied with the results obtained by following the older method of allowing patients to take free exercise, the modern tendency is to keep acute cases, whether of mania or of melancholia, in bed for prolonged periods, and to seclude them from other patients. The prolonged

warm-bath constitutes one of the best means of securing rest, but the employment of this form of treatment is limited in this country owing to the fact that it requires to be recorded as restraint under the Lunacy Law if a lid be applied to the bath. Similarly, the use of the wet and dry pack is limited, for this also is restraint. Warmth and nourishment must be provided, and the bowels attended to. Strong clothing, not easily to be torn, will often be needed. Strong dresses and rugs should not be allowed to remain on the patient when wet and soiled. The maniac usually takes plenty of food, and extras in the way of milk, eggs, and broth are desirable. The undesirability of drugs scarcely needs to be pointed out, but prolonged periods of sleeplessness, exhaustion from other causes, and extreme restlessness or violence may render their use necessary. The ordinary sedatives of the Pharmacopœia are employed, mixtures of chloral and bromide of potassium, or chloral and sulphonal being commonly given; for agitated, impulsive, and violent states hydrobromate of hyoscin, injected subcutaneously, after food, is valuable. It will be found that in the insane doses often considerably exceeding those of the Pharmacopœia must be given if results are to be obtained. Free purging, and subcutaneous injections of normal saline solution (as described under Melancholia, p. 207) are beneficial. In convalescing cases of this and other forms of insanity physical drill and gymnastics are useful, and iron, arsenic, cod-liver oil, and the like.

Pathology of mania.—Any condition of physical illness may set up an attack of mania in predisposed persons. Mania must be looked upon as depending rather upon weakness than upon inflammation. The excitement and restlessness are results of want of control, not of excess of power.

The circulation is feeble, and the power of reaction small. Power of assimilation is also generally impaired, the secretions and excretions not being normal. The pallor of the face points to anæmia, and the wide pupil to nervous weakness. As far as the local pathology is concerned, but little that is definite can be said.

I may record such scattered facts as have come under my observation under this head. In cases of death from acute mania, I have several times found no changes in the brain which were visible to the naked eye. I have in some such cases found local disease elsewhere, as in the lungs, ovaries, kidneys, heart, or liver.

In some cases I have found evidences of old-standing wasting of the brain, which seemed to have prepared the way for the fatal attack of acute mania.

I have found the brain remarkably blanched on the one hand, and on the other either venous congestion, or fine capillary injection, general or local.

Frequently I have found excess of subarachnoid fluid. No importance attaches to the milky patches found in the arachnoid, and there is no special condition of dura mater, or of any particular convolutions.

Histologically I have rarely failed to find, in fatal cases of acute mania, changes in the nerve cells, more especially in the pyramidal layer. The nerve processes may be wanting, the cells may be swollen and indefinite in outline, and in some cases they are much wasted, or exhibit degeneration of one form or another. Recent investigators have described fatty and pigmentary degeneration of the nerve-cells, displacement of the nucleus, chromatolysis, etc., but the same changes are found in other kinds of insanity. In some cases there was

certainly excess of leucocytes in the vessel sheaths, or outside them.

I must give as my experience, that persons may die of acute mania, and yet their bodies may exhibit nothing which a skilled pathologist would, at present at least, be able to say was sufficient to destroy life.

CHAPTER VIII.

HYPOCHONDRIASIS.

Hypochondriasis frequently dependent upon some bodily condition — Distinction between hypochondriasis and melancholia — Prognosis — Brain hypochondriasis — Gastro-intestinal hypochondriasis — Sexual hypochondriasis — Hypochondriasis mixed with melancholia.

JUST as, in considering mania, I pointed out that hysteria might in many respects be considered as undeveloped mania, and might be looked upon as a very closely related condition, one which had the same origin, and might have the same termination, so in this chapter I shall consider the condition called **hypochondriasis,** and its further development of melancholia.

We begin mental life by receiving impressions, and slowly building up, with those impressions, a power to receive higher ones, just as we commence motor life by combining the simple muscular forces till they become the wonderful machine that speaks and writes. Step after step is gained both on the sensory and motor sides. From the lower we rise to the higher; and in healthy development we forget those things which are past, whilst we stretch forward to the new. The muscular adaptations are organised, so that they become automatic, and a similar organisation takes place with respect to our sensations. Doubtless, the child feels much more real satisfaction in his simple meals than does the *gourmet*. To the child, the satisfaction is one that is felt by his whole body. I am in the habit of saying that, in my belief, the persistence

of the *ego* does not so much lie in any highly organised nervous centre, but has its origin with the earliest processes of nutrition, and that the *ego* springs into being rather along the gastro-intestinal track than, Minerva-like, from the brain. Self-feeling is altered in many cases by a change in the digestive functions; and just as we have the most perfect movement, without a knowledge of the muscles which are being brought into action, so we can only really have perfect sensation when the sense-organs are in perfect health, and react automatically to the surroundings. A man who is in health receives impressions without knowing it; when he has to strain his ears or eyes, he is not acting in harmony; when he is thinking he should have no feeling of weight or pressure within his skull, and when digesting, he should have no knowledge of the existence of his stomach.

In the class of patients which we are about to consider, the functions are from one cause or another thrown out of gear, so that the automatic action of sensation no longer exists. The person feels everything he does, and knows from his sensations that he has viscera. The knowledge of this necessarily distracts his attention from what might be called the higher, and concentrates it upon the lower or more organic sides of his being. Nearly every patient suffering from melancholia complains of feelings of illness. In mania, we saw the feeling was one of buoyancy and exuberance. In melancholia we meet with a slowing of all vital processes. What the pathological basis of melancholia may be one cannot at present tell. It seems, however, that in most cases it must be associated with impaired nutrition of the nervous centres and the conducting system. Instead of conduction and reaction to impressions being active, they are so slow that they can be felt in their action.

Hypochondriasis and melancholia more probably depend upon some general bodily condition for their existence than do most other forms of insanity. The person of unstable nervous system, who has a constant worry or a continual pain, due to some bodily disease, is likely to be absorbed by this constant irritation, and have his life centred, as it were, around the seat of painful impression. As we shall see, some centres seem specially liable to start these morbid feelings, making the man, in one case, hypochondriacal, and in another, melancholic. Before, however, proceeding farther, I would say that the distinction between hypochondriasis and melancholia is rather arbitrary. It may be convenient, but it is not philosophical, to treat of the body apart from the mind, and the physical symptoms separately from the mental. Further consideration will show that a man who believes himself forsaken by God may, after all, have got that idea in consequence of some gastro-intestinal trouble, and that damnation has been his method of interpreting dyspepsia. It has been generally said that morbid sensations are the essential of hypochondriasis, and morbid feeling the essential of melancholia. But, as I have hinted, the distinction is one that is scarcely satisfactory, and when considering cases as they present themselves in practice, we shall see that patients may belong to a hypochondriacal class on the one hand, and yet have distinctly melancholic symptoms on the other.

For convenience, I shall only consider at first the cases of bodily hypochondriasis, for they will form a useful group by which to connect melancholia with hypochondriasis. I shall have to describe cases of mental sensitiveness without any defined feeling of unworthiness, cases in which people, instead of looking at their tongues and

feeling their pulses, are constantly asking themselves if they are doing their duty.

Of ordinary hypochondriasis there are three classes seen in an asylum, besides the sufferers from general hypochondriasis, who complain of some general disease like syphilis or hydrophobia, or who believe themselves to be on the point of death. And just as the hysterical woman may remain hysterical all her life and never become insane, so the hypochondriacal patient may remain hypochondriacal to the end. The classes consist first of those who complain of brain-working or **brain loss**; secondly, of those who complain, as does the ordinary hypochondriac, of some **digestive trouble**; and, thirdly, those who believe that there are some **defects in the reproductive organs.** Emotional depression springs from a feeling of real bodily illness, but the illness is rarely of what may be called a coarse kind, but is the result of impaired function, and not of structural disease. In insane hypochondriasis it is common to find a very clearly marked localisation of the complaints, and though one does not meet hypochondriasis of the ordinary type in an asylum, this is less common; it is not of these that I now write.

Patients recovering from an attack of insanity frequently feel nervously tender, and complain daily of some fresh ailment, wanting a liniment to-day and a tonic to-morrow. Though hypochondriasis is generally seen among men, in an asylum it is also seen among women. It occurs in the middle-aged more than in the young; but we frequently meet with sexual hypochondriasis among the latter. Young people also exhibit various phases of brain hypochondriasis, the gastro-intestinal cases belonging chiefly, but not solely, to those of more mature years. The causation may

be general or local; there may be some physical cause for the feeling, and the concentration of attention upon the weak spot may have exalted its sensitiveness to a diseased point. Intellectually, these people rarely, if ever, show signs of weakness; at all events not for years, and I believe that the hypochondriacal patient rarely ends in dementia. He often is conceited; and it seems to me that hypochondriasis may be looked upon as a kind of conceit. Patient after patient will say that he suffers as no one ever suffered before, that it is quite useless to compare him with his neighbours, and that he is utterly unlike all others. The association of ideas with him is natural. Will seems generally enfeebled in consequence of inability to divert his thoughts from painful sensations; the appetite is bad, constipation generally exists causing him further anxiety, and he is often irritable and emotional. His memory is good and his judgment of things, apart from himself, is good, so that he could be trusted in a court of law as an ordinary witness. He is not subject to hallucinations of his senses, his perversions being illusions; that is, he misinterprets what is presented to his senses. Sleep is broken, and often disturbed by dreams of an amorous type, which still further distress him. A hypochondriac may kill himself or another, but generally he appears to be cowardly, and many have told me that, although tired of life, they never for a moment dreamt of killing themselves.

The hypochondriacal condition is not a very hopeful one. Prognosis depends upon the length of time in which it has been developing, the age of the patient, and the physical basis from which it springs. The older the case, and the longer and the more steadily it has been developing, the less hope is there of recovery. In some it takes a long

time before it becomes really an insane condition. A case begins with recurring periods of depression, in which the patient feels out of sorts, and commences to overhaul his various bodily functions and habits; he wonders whether it is smoking or drinking which is causing his sleeplessness, whether tea disagrees with him, or if milk should be his only drink; he exhibits irritability and inability to work. He tries all sorts of nostrums recommended by his friends, follows the teetotallers or the vegetarians, being in turn delighted with the results of his experiment and disgusted with their failure. Such patients stand a very great chance of being mismanaged, for between the attacks of depression they appear so well to their friends, and express such a powerful conviction that they will never be ill again, that they are not definitely put under treatment till the morbid feelings have become established. The insane hypochondriac does not live to a great age, as a rule, the older man or woman wearing out and dying of some secondary trouble, such as inflammation of the lungs. The younger cases may pass into weak-mindedness, or mind-restriction; or if sufficient lever-power to induce them to work can be brought to bear upon them, they may completely recover.

Group 1.—Brain hypochondriasis.—In an asylum, although headache is not very commonly complained of, yet we constantly hear complaints about uneasy feelings in the brain. One class of patients, both male and female, complain much of changes in the brain. In these cases it is almost invariably found that there has been some sexual trouble. I have met with many complaints about strange sensations at the top of the head and in the brain in patients who say that they have injured themselves by masturbation. I have met with this also in cases where sexual excess has

been indulged in, and I am inclined to think it may occur also in cases where there has been an unnatural suppression of all sexual instincts. The patient tells you that he is sure his brain is dried up or changed in some way, and one man described the feeling as that of being possessed of a brain like a Spanish onion, in which the thin scaly coverings had been removed without causing pain, but now that the fleshy layers were being removed the pain was dreadful. In this case change of surroundings, active and energetic companions, and some physical trouble acted satisfactorily in starting him along a fresh line, which has so far been followed with beneficial results. Women suffer similarly, and in them the pain on the top of the head is constantly associated with menstrual irregularity. At the climacteric I have frequently seen similar cases. Thus, in a patient formerly in Bethlem, the feeling complained of was that of opening and shutting of the brain, so that she would ask me to listen to the top of her head, or at least to place my hand there to feel the snapping. If such condition depend upon a cause like the climacteric, the prognosis is better than when it simply depends on the laborious action of degenerating organs. The following case, taken down from the patient's own lips, conveys more graphically than any other description could, the misery of the brain hypochondriac:—

"I am a medical man, and my age is forty-seven. I always had a very good constitution, and possessed great muscular strength, active habits, and an excitable temperament. One morning in March, 1879, being at the time in perfect health, I was tempted to commit self-abuse. I had done it before, but not very frequently, having foolishly abstained from marriage. I was immediately afterwards seized with giddiness. Whilst dressing

before the looking-glass I noticed that my face was flushed in a manner I had never before seen, being livid and congested, and of a dark purple hue. My pupils were also exceedingly dilated at the time. On that day I felt my gait tottering and my temper disposed to be irritable. That night I had very little sleep, and suffered severe pain in my head. From that time sleep departed more and more. I resorted successively to every known narcotic drug, gradually increasing the doses, until I gave them up as inert. I went away to mountain scenes to try change and exercise, but no benefit accrued. I returned and made a desperate struggle to carry on my practice, but finding myself becoming worse, I went to the Hydropathic Hospital in Yorkshire, and underwent the treatment there without any good result. I then transferred myself to the Leeds Infirmary, and was under Dr. Clifford Allbutt. There drugs were given to me, but nothing produced sleep. I prayed to be bled or leeched, but was refused. I then bribed the nurse to put fifteen leeches on my temples, after which I obtained, for the first time for many months, three hours' sleep. I was so pleased with the result that I dressed myself and returned home to my practice; but finding myself getting worse, I left in November, 1879, and since then I have spent two years mostly in bed, suffering intense pain all the time; and for the last two years I have been a patient in Bethlem.

"My principal troubles are now almost entire sleeplessness, intense pain in the back of the head, most severe in the mornings and after food, especially liquid food. I am troubled with dreadful libidinous desires, in spite of all efforts to avoid them. This was, however, relieved to some extent by bromide of potassium, in large doses. I am now slowly but surely getting weaker, losing flesh; my

circulation is becoming more feeble, my appetite poor, a dragging pain at the heart sometimes, but not often; at night spasm of the larynx nearly chokes me. About three years ago I was struck by a remarkable appearance of the veins in my hands, and they presented the appearance of containing little or no blood, but on opening a vein for nearly an inch in length, I could squeeze only a slight drop of blood from it; whereas, on the contrary, the deeper veins were unnaturally distended. When the paroxysms of feverish excitement are on me my whole body feels as if the blood were nearly boiling. I have often wished the medical men in Bethlem to test the supposed delusion as to the state of my veins, but they have not done so. I notice but little diminution in my mental activity, and this convinces me that no structural change of brain structure has taken place, and that the true nature of the lesion is paralysis of the vaso-motor system, more or less of the whole body, but more especially of the sinuses in the posterior part of the brain, as I distinctly feel intense pressure, and on moving my head creaking noises are heard. I attribute these noises to the stretching of bands of lymph thrown out around the sinuses, so that they may be kept dilated. I am perfectly convinced that recovery is impossible, that all treatment is useless, and that this is, without doubt, the true meaning of the passage in 1 John v. 16: 'There is a sin unto death: not concerning this do I say that he should make request' (Revised Version). And I believe this evidence is overwhelming, for I was in magnificent health before doing this sin, and was struck down instantaneously, and have been in misery and pain ever since. My bowels are constipated occasionally, but at rare intervals. I have pseudo-tetanic spasms down the spinal cord, and at times

there is intense dragging, gnawing pain in the same region."

Another male patient in Bethlem was fully convinced that all his back-brain had been removed by a miraculous interposition of Providence, and that he possessed nothing but his face and, as

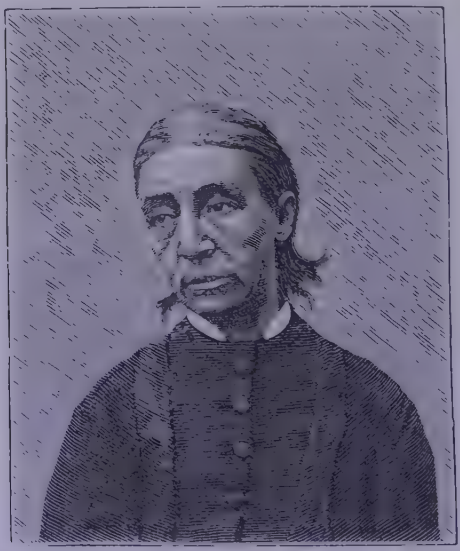

Fig. 4. Case of hypochondriasis, with ideas of bowel obstruction.

he said, a little span of brain which enabled him to recognise his friends. From time to time, from week to week, the poor fellow would march about with his hand on the top of his head, begging us to have compassion on him and communicate with his relations in order to take him home and die. The misery of his existence seemed to be complete, and the prognosis, though wholly unfavourable as

to cure, did not even give the hope of that annihilation of suffering which so frequently occurs to the ordinary melancholic patient when he becomes weak-minded. The misery in his case would not become mechanical, but would slowly wear him to the grave.

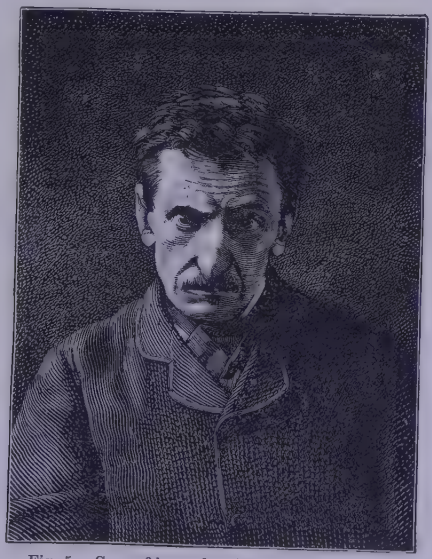

Fig. 5.—Case of hypochondriacal melancholia.

Group 2.—Gastro-intestinal hypochondriasis.—In this group we have three divisions. First, patients who complain of obstruction or disease about the throat; secondly, those who complain of similar feelings and uneasiness at the pit of the stomach; and thirdly, those whose complaints are referred to the lower bowel. There are other cases in which two or more of these

symptoms are united, and one meets constantly with cases in which reference is made to uneasy feelings, referred to one or other part of the digestive track. A Bethlem patient thought that his food passed directly into his left arm, whereas another imagined that it passed into his circulation. Of the cases with *throat trouble*, examples occur among both men and women. I have met some with simple exaggerations of hysterical globus in young patients, and I have met also with similar cases in men at the extreme of life. One young man was constantly in the hands of quacks (who, by the way, probably live more on hypochondriacs than on any other class), in consequence of an idea that his throat was contracted, and that it was impossible for him to swallow. He came of a nervous and phthisical stock. He had been nurtured among an emotionally religious sect, and at the onset of manhood he became nervously and hypochondriacally disordered. Change of surroundings, absence of quacks, use of tonics, and sea-air did him good.

In another case, where the father was an inmate of Bethlem, the son was admitted suffering from hypochondriacal insanity, with the persistent idea that there was some malignant growth at the back of his throat. He took hours to swallow any food if left to himself, and would become violent and excited if contradicted. Everything was done to convince him that no obstruction existed. Probangs were passed, his throat examined by the laryngoscope, he was allowed to examine his own throat by reflected light, and, as a last resort, he was sent to a leading laryngologist who certified that his throat was normal. Reason, however, is wasted on the insane hypochondriac, and this patient, after more than a year of treatment, was discharged uncured, but in robust general health.

I have frequently seen him since, and his condition is unaltered, no sense of duty to relations or friends being able to stimulate him to work, and nothing sufficing to convince him that he is not slowly dying of general wasting. When it is pointed out to him that he is getting fat, he says it is but the infiltration of his tissues with diseased matter.

There is one other case worthy of note under this head. It is that of a patient who returned to Bethlem every few years with exactly similar ideas. He was admitted in a depressed and anxious state, refusing to speak at first, but pointing to his throat, which he wished us to understand was closed up. In a day or two he would say that he had no doubt about it, for although in other attacks he felt in the same way and thought there was throat obstruction, now he was completely convinced that his end had come. He invariably lost all these ideas in a few weeks, and went out well.

The above cases are good examples of throat hypochrondriasis, as seen in young hysterical or nervous patients, in the adult with strong nervous inheritance, and in the old associated with periodic attacks of mental depression connected with physical weakness.

In the next division the troubles are referred to the *epigastrium*. This is the ordinary seat of painful impressions in all nervous disorders. And the Psalmist, in saying that his "bowels yearn," recognised the fact that emotional feeling and disturbance were ever associated with an uneasy sensation in the abdomen. In early melancholia, in acute mania, even in simple fits of passion, uneasy epigastric sensation is experienced. In acute mania this may lead to excess of stimulants taken with a view of soothing the uncomfortable feeling, whereas in the melancholic patient the sensation

may give rise to some fixed delusion. Patients both young and old, male and female, suffer in this way, and describe in different ways their uneasy feelings. One will say that he feels the food passing down the gullet and then drop into a cloacal cavity, and another will allege that it passes from the gullet into some tissue of his body, or into the main circulatory system. In all these cases the bodily symptoms differ in no way from those of the ordinary hypochondriac. The insane person is but an exaggeration of the ordinary hypochondriac, and the prognosis depends entirely on general conditions. In some of these cases the chief difficulty in getting them to take sufficient food is that they are convinced there is a limit to the capacity of their abdomens, and they will refuse with violence to take more food, and may have to be fed artificially.

One practical point is noteworthy, and it is that most of these patients have concave abdomens, and although they may waste, and, in many respects, have much the appearance of patients suffering from severe chronic or malignant disease, yet, in all their complaints, no local obstruction, nor any dilatation of the gut, will be found.

In some of these cases ulceration of the duodenum has been proved to exist, by Dr. Claye Shaw, and I have found similar pathological changes. Patients belonging to this group, as a rule, slowly lose flesh and strength, become bedridden and die. It is well that every method of feeding should be pursued, and that the food should be varied in every way, in the hope of finding some which will be retained and assimilated. The many patent foods, such as the peptones and extract of meat, with pepsine or other digestives, may be administered. Nutrient enemata may be given, when the other methods have failed,

although I have rarely seen good follow their use, and I have once or twice seen symptoms of collapse in such cases follow rectal feeding.

The last variety of this group contains cases in which the complaint is that *the bowels never act*, and that from some cause or another the lower bowel is closed. There is no distinction in general appearances between this class and the last, the symptoms being similar in almost every particular. We had a patient in Bethlem who for over a year was possessed with the idea that all his food was retained and gradually passed under his skin, so that, as he said, he had tons of potatoes in him; and although when weighed from month to month he was shown to be steadily losing weight, this did not satisfy him, for he reiterated, as a fact, the statement that he had tons of food about him. He steadily lost strength, and died, there being no physical cause for the trouble in his abdomen.

Hypochondriacal melancholy with ideas of bowel obstruction and unworthiness in a young woman.—Kate M., single, twenty-nine. Maternal aunt insane; mother and two aunts died of phthisis. This patient spat blood twelve months before admission and lost flesh. Menstruation at times profuse. This was the first attack of insanity, and it began with a sudden outbreak of destructive violence, which in a few hours passed into melancholy. On admission she was wasted and sorrowful-looking, silent and unoccupied. She refused food, and said she was a great sinner. She had to be fed with the stomach-pump for some weeks. She was sleepless, and would stand about all night, and for this I had her placed in "dry pack."

After two months' feeding by stomach-tube, or by nose-tube, some salt was added to the beef-tea, and a thirst was created, which she herself satisfied.

From this time she took some food, and said she was much better. She was sent to the convalescent home, where she spent most of the year 1883. She gained flesh, but still maintained that she had a disease which prevented her from eating. She said that all her life she had been constipated, but that now her bowels were completely closed, so that nothing ever could pass again.

She was tried on leave of absence at home, but at the end of three weeks was brought back much wasted.

A similar case was that of a woman, single, fifty-two years of age, who had had a previous attack of insanity, from which she recovered. She was admitted into Bethlem in the spring of 1883, possessed with the ideas that she was eternally lost, that her blood was turned into water, and that her bowels were filling up. She was constantly trying to force a passage with her fingers (and this is one of the most trying symptoms which occur in these patients, the constant endeavour to relieve in some way the uneasy sensations from which they are suffering). For a time this patient lost flesh and strength, but after seven months' treatment she began to get stout. She was still, however, possessed with the same miserable feelings and unhappy sensations. The case passed into a chronic state from which there is no probability of her ever recovering. This last case serves as a good example of the whole class.

It is comparatively rare in an asylum to meet a patient whose complaint about visceral sensations is not joined to some idea of moral unworthiness; and it will be almost invariably found that the patient who thinks he has lost his inside, or that nothing passes through him, will sooner or later be convinced that his soul is wrong in one way or another.

Each case of hypochondriasis requires special treatment. The young case requires exercise, liberal diet, and if possible change of scene, change of companions, and such conditions as are best obtained by foreign travel with a skilled attendant or medical companion. A doctor's house in the country, where the patient is taken about pretty regularly by the medical man, is also of use, but I believe many cases are spoilt for want of early and decided cutting off from old religious and social surroundings. Tonics, in the form of iron, arsenic, or zinc, are useful, but no good will be done to such a patient unless he be allowed to take some simple form of aperient pretty regularly. I am in the habit of commencing with some mineral water every morning before breakfast, or giving tamar Indien, or encouraging the habit of taking fruit stewed or fresh, or oatmeal porridge. Too much attention must not be paid to the state of the bowels, but yet there is constipation in nearly all the cases, and it is just as well to recognise the fact. If purgatives or aperients of the kind described fail, it is well to try belladonna alone or with nux vomica, and I have had good results from the administration of five grains of the extract of aloes and one grain of quinine daily. To place the patient under the best hygienic conditions as to food, stimulants, and surroundings should be the chief object; then if he is young, and has not suffered long from the disease, he may recover.

Group 3.—Sexual hypochondriasis.—Though ordinary hypochondriasis occurs mostly in elderly men, a variety of the same disorder is met with in young and middle-aged men and women. Nothing in this world so depresses a man as the belief that he is impotent, and whether he has been in the habit of using his reproductive organs or not, the idea that he is unmanned reduces him to

despair; and although I have said that as a rule the hypochondriac is not actively suicidal, I have here to qualify that statement in reference to the cases suffering from sexual hypochondriasis.

Besides the cases of middle-aged men who believe themselves to be impotent, there are other cases of youths who have given way to masturbation. Such youths pass into a state of self-analysis, and of study and contemplation of their reproductive organs and their functions in the same way that the ordinary hypochondriac studies his digestion.

In some cases the idea is that there is something or other wrong, and no reasoning or explanation is able to persuade them to the contrary. Either the patient is haunted with an idea that he is physically and morally ruined because he has erections of the penis, or he is equally distracted because they are absent. This class is one which gradually develops ideas about spermatorrhœa. Take, for example, a man, twenty-eight years old, who was from early boyhood given to self-abuse. He married with the idea that he would thus, at all events, get rid of that vice, and pass into a healthier and more physiological condition. For a time he seemed better, but he indulged in the most extreme way in sexual gratification. He continued at his work, but became nervous because the sexual act became less pleasurable, and he was gradually convinced that he was suffering from spermatorrhœa. His whole ideas were concentrated upon this matter. He consulted doctors, quacks, professional medical works, and followed every particular advice which he could get, at one time exhausting himself by abstinence from meat and stimulants, and at another time overdrawing his physical account by long and weakening exercise. Notwithstanding all his endeavours, the so-

called spermatorrhœa became worse and worse, so that, as he expressed it, the mere going to the closet, or brushing by a woman in the street, would produce an emission without any sensation. Do what he would, the idea followed him into the workshop, the church, and the street, that he was slowly being drained away. I found that arsenic and avoidance of doctors did him more good than anything else. I impressed on him, at the same time, the importance of continuing at his work, and trying to occupy his mind in one way or another.

Case of sexual hypochondriasis; recovery.—A coachman, who had been a trusted servant of one of our English noblemen, and who had led the rather free life of a gentleman's gentleman during the seasons in London, had not only contracted somewhat extravagant habits, but also had managed to get venereal disease in its various forms. He became engaged to be married, and then a reformation took place in his conduct; but he was surprised to find that this purer form of affection was less associated with erotic feeling than he expected, and he became possessed with the idea that he was impotent. His one idea was that it was no use his living, that he was no longer fit to be reckoned among men; and although, if roused from these ideas, he would talk not only intelligently, but pleasantly, about his past experiences, he soon relapsed when left to himself. After twelve months' treatment at another asylum he was brought to Bethlem, and when he had been over a year there I tried the effect of forcing him back into his old associations, and daily a former job-master to his master came to take him out for drives in the park and elsewhere. For some weeks little progress was made, yet, undoubtedly, his interest was returning to his old pursuits, and before three months had

passed he was sufficiently well to be sent on leave of absence; at the end of his leave he was discharged recovered, and has not only lost his ideas about impotence, but is satisfactorily married to his former love, and is in full work.

It is comparatively rare to meet with women suffering from similar ideas; and I am in doubt whether to place the following case under this head, or rather to look upon it as the outcome of ordinary melancholia. A young woman (who, by the way, was begotten by a father while he was himself on leave of absence from an asylum), having become engaged to be married to a young man suitable in every way, took a vague fancy that it was wrong to marry. She treated her lover with indifference, and caused him considerable worry and annoyance; but he fancied these were the ways of women, and were tests of his affection, and submitted to all her freaks, the more especially as her mother said, "It will be all right when she is married." After several *contretemps* the wedding-day arrived, and the young couple were married; it turned out afterwards that the bride had to be freely stimulated with brandy before she could be got to church. There was some trouble about changing her dress and getting her into her travelling costume; but this was accomplished, and bride and bridegroom started for their future home, where they were to spend their honeymoon. It was with difficulty that the bride was persuaded to go to bed, and on the bridegroom repairing to the bridal chamber he found her still in her clothes, lying outside the bed. No persuasion could induce her to undress, and the matter-of-fact bridegroom went to bed, and slept without his bride. She spent the night in restlessly moaning and picking her fingers, saying she was unnatural, and not like other women. It was proved conclu-

sively that there was no physical incapacity on the part of the bride or bridegroom, and the case having been tried in the divorce court, nullity of marriage was decreed.

In this last case everything depended upon the ordinary melancholic feelings that something was wrong being referred to the reproductive organs, and so, though not a perfectly pure case of hypochondriasis, it may appropriately be cited here. And there are many young women admitted into Bethlem with vague feelings of being unnatural in consequence of suppression of the menses; these generally recover in mind and body, under tonic and general treatment, with the re-establishment of the function.

A group of strange cases closely connected with the above is represented by instances in which some act of immorality is committed, and although it may not have been a very grievous fault morally or socially, yet the person is never able to throw off the impression. Thus, a middle-aged single man, who had led an altogether continent life, on one occasion exposed his person at his bedroom window, and although no one seems to have been affected by the exposure, and although for some weeks it made no impression upon him beyond a slight feeling of having done an immodest and unworthy act, yet, becoming dyspeptic and out of health, he began to be impressed more and more with the gravity of the act he had committed. He sought relief by going to his religious adviser; he tried by confession, by charity, and by general good deeds, to wipe out the evil; but nothing he could do in any way removed the anguish, and day by day his grief grew like a monster in a nightmare, threatening to smother and destroy him. He had no loss of intellect, no loss of reasoning power, had fair ability to transact his ordinary

business, but whenever alone the same horror always returned. Such a case may seem unusual; but I have now seen very many, similar in nearly every particular, except that the first cause has been different in each, though it was, without exception, some dirty or low act in connection with the reproductive organs, the symptoms rarely coming on at first, but growing almost unperceived till the morbid condition is fully established.

Where practicable, advising such patients to learn a musical instrument is useful in distracting the attention and giving a pleasant stimulus. Marriage is hardly to be recommended, for they are already sufficiently prone to dwell upon sexual matters, and, being ignorant of the physiology of reproduction, are likely either to indulge without restraint, or else, through nervousness, to feel impotent.

General paralysis of the insane, with early symptoms of a hypochondriacal nature.—Thomas F., married, 42, architect, admitted February, 1882. Paternal aunt in an asylum. Phthisis also present on the father's side. His illness began with suspicion and doubt three months before admission. Over-study was given as the cause. He was very suspicious, and fancied he was going to be hanged. He thought the room was filled with electricity. He had hallucinations of sight and hearing. He complained of his thoughts and his words running away from the top of his head. He resisted being dressed. He refused food. He was full of hypochondriacal delusions for a year, then he slowly developed fully-marked general paralytic symptoms.

General hypochondriasis following dysentery.—Eliza C., single, 31. No history of neurosis in the family. This patient had suffered from some West Indian fever, and had to return to England in

consequence of dysentery. She was extremely emaciated and anæmic.

She believed God communicated with her, telling her not to eat, and added that she must die.

She was obstinate, and at times inclined to be violent if she were forced to take food.

No dysenteric symptoms existed, and no treatment made any impression on her symptoms.

She moaned all day long about her dying state and about the brutality of the doctors in not sending for her relations, as she had at most only a few days to live.

She understood everything that was said to her, and her speech and actions were coherent.

The one idea which dominated every other was that of her coming death, and no reference to the fact that she had had the same ideas for many months past had any power with her.

Her condition, being associated with weakness due to a physical disorder, may possibly be recovered from.

In similar cases the patients have had ideas that they had syphilis, small-pox, or some other contagious disease, and it is common for such ideas to be associated with the notion that there was moral impurity as well, so that there is but one step between the fancy that the person is suffering from syphilis and that he is an unpardonable sinner. These cases have all the other characteristics of the hypochondriac, intellectually and morally.

To sum up, hypochondriasis may be so extreme as to require the removal of a person from home surroundings, and may even require detention in an asylum; the chief reasons for sending such persons to asylums are the obstinate refusal of food, or the suicidal tendencies. Hypochondriasis may

be simple, but more commonly it is connected with some delusions of a melancholic type.

Hypochondriacal insanity may attack persons of any age or condition.

It may be the initial stage of some other mental disorder, such as mania, or it may be the first part of the diseased process in general paralysis of the insane.

It may depend on some organic disease, such as phthisis or renal disease; or it may only be what is called a functional disorder.

It is curable in direct proportion to the acuteness of the attack, and to the general vital condition of the patient.

Change of surroundings, exercise, and good hygienic treatment, are better than many visits of the doctor.

CHAPTER IX.

MELANCHOLIA.

Melancholic conditions—Physical symptoms—Mental symptoms—Varieties: simple, active, passive, and stuporous—Melancholia with delusions—With suicidal tendencies—Climacteric melancholia—Senile melancholia—"Maniacal depressive" insanity—Treatment of melancholia and stupor.

Melancholia is a state of mental depression in which the misery is unreasonable either in relation to its apparent cause, or in the peculiar form it assumes, the mental pain depending on physical and bodily changes, and not directly on the *environment.*

1. Melancholia may be one stage in the mental disorder; thus, it may usher in mania or general paralysis of the insane, it may be present after an attack of mania, as a phase of reaction, or it may be one of the stages in *folie circulaire.*

2. Melancholia may be a complete process in itself.

Melancholia varies greatly in its aspects; and just as grief causes an emotional storm in one person while it stuns and stupefies another, so the exaggerated melancholy may be of an emotional or of a dull type.

I shall divide those cases which come under the head melancholia as simply as possible: (*a*) Into those with *simple* melancholy, *i.e.* those in whom the misery and its expression are only slight exaggerations of natural states, those cases in whom there is no real delusion, no fiction such as that they are ruined or damned. (*b*) In contrast to these

are those suffering from *active* insanity, those who, instead of suffering in silence, are constantly bemoaning their lot, and, with hand-wringing and hair-tearing, are heaping curses upon themselves. Such cases often resemble in aspect patients suffering from mania. (*c*) The cases of most profound misery are classed as suffering from *melancholia attonita*, or *passive melancholy*. With this may be associated stupor (*melancholia with stupor*).

Grief is a weight crushing these patients out of all their social relationships.

They are the most miserable to look at of all lunatics. So mindless may they appear that they may be mistaken for patients suffering from dementia.

Melancholia may depend for its existence on some delusion, but much more frequently the misery gives rise to the delusion. A saturated solution of grief causes, as it were, a delusion to crystallise and take a definite form.

Melancholia has a *bodily* and a *mental* aspect.

Physical symptoms.—It is associated with an anxious expression more or less pronounced, the skin is generally sallow, the appetite bad, digestion imperfect, tongue moist, often tremulous and flabby, bowels confined, and general nutrition impaired. Some digestive fault is, in many cases, the basis of the refusal to take food, which is one of the most serious symptoms of this disorder. The circulation is feeble, the blood pressure raised, the pulse-beat diminished in frequency. I have known the volume of the pulse materially differ in cases of recurrent melancholia, so that whereas the upstroke was represented on the sphygmographic tracing by a quarter of an inch in a period of depression, it was represented by nearly half an inch in the interval of health. Later I shall point out that melancholic symptoms are not unfrequently

associated with visceral disease; but the association is not so frequent as to deserve extended notice here. Respiration is generally slowed, but without any noteworthy change in rhythm. As a rule, the bodily movements are slow or monotonous, and the temperature is occasionally sub-normal; frequently it is maintained at its ordinary standard, or may in active melancholia be above normal. Although sexual feelings are in many cases in abeyance, yet this is not constantly the case. Menstruation is frequently absent in women, but there may still be sexual desire, and in both men and women I have known cases of sexual excess and of masturbation during periods of mental depression. Sleeplessness is one of the most characteristic symptoms of this condition. There are several varieties of sleeplessness, one in which the patient is restless, excited, and unable to remain for a single minute in one position. Such cases belong to the active melancholic class. Other patients will lie placidly without moving, but suffering torments (so they tell me) from sheer misery, and some such placidly sleepless patients seem to be able to do without complete loss of consciousness in sleep for a very great length of time. They do not wear themselves out as do the more active and restless cases. They get rest, and probably there is some sleep, although an unrefreshing or unrecognised sleep, which enables them to endure for many months. I remember a patient who recovered in the end, but who for over three months was never once found asleep by the night watch, who visited her hourly; and on recovery this patient asserted that she never lost consciousness during the whole of the three months.

There are other conditions of sleep which we meet with in melancholia. In some the patients own they sleep, but at the same time say that the

sleep is altogether unrefreshing, so that when they wake up they feel no better than when they went to bed. Another form of insensibility occurs in these patients, so that they eat or drink in large quantities, and yet without any feeling of satiety. Lastly, they may sleep in a way which many have described as "dead sleep," a condition which they compare rather to syncope than to ordinary forgetfulness. They describe a sudden plunging into unconsciousness, and an unexpected, unsatisfied return to wakefulness, and in these cases also there is as complete a lack of any refreshing influence as in the former ones.

Sense perception in such cases is often dull, and in some cases the melancholia seems directly to be associated with impairment or loss of one or more of the special senses. I am constantly in the habit of referring to cases in which loss of sight or deafness is associated with the development of melancholic symptoms; but generally the chief change is one of dulled perception and slow reaction. In a way this may be explained by the abstraction of the patient's attention; his mind being entirely occupied along one line, it is difficult to attract his attention in another. In this way an apparent loss of common sensibility may occur, so that a melancholic patient may pick his hands till they bleed, or make holes in his forehead with his nails without seeming to feel it. The chief perversions of sense, however, are the hallucinations and illusions which are so common in these patients.

Probably, next to delusional insanity, it is more common to meet with hallucinations in this group of mental disorders than in any other. A very large proportion of patients suffering from melancholia have sense perversions, and at least half of the dreads, horrors, and suspicions which fill their

minds are due to subjective impressions. "Voices" are constantly heard by night and by day threatening, warning, accusing, and vilifying. Visions of horror, alarm, and threatening are conveyed by one or other of the senses, which keep the patient ever on the rack. The causation of these hallucinations will be considered in detail, and examples will be given later. It may, however, be well to state here that hallucinations, although most common with hearing and next probably with sight, are still extremely frequent with common sensibility, producing the thousand and one strange feelings of so-called magnetism, electricity, spiritual communication or influence, and the like.

Mental symptoms.—In ordinary melancholia the memory is good; patients accurately recall what has taken place before the attack; they remember what has occurred during the attack, and vividly recollect the supposed cause of their breakdown, which generally to them appears some frightful enormity or injury which has been magnified and coloured by their morbidly sensitive condition. I have several letters from patients telling me they remembered being told by the doctors to rouse themselves, and that such advice had an influence upon them. They feel acutely the tones in which they are addressed, and it is of the utmost importance that, though they should be spoken to in a straightforward way, yet this should be done without sneering or bantering, for they will recall an unkindly word or act as well as a kindly one. The association of ideas is often natural, and although the ideas may seem to flow but slowly compared with those in acute mania, yet they are normal in relation to one another. Patients often will be found able to argue perfectly clearly and connectedly about other patients, and upon subjects not connected with their own

insanity; but as soon as they are brought face to face with their own condition they are unable to balance ideas. The patient who feels herself a source of contagion, and who is desirous to be buried alive to prevent others being affected with the pestilence, is in no way convinced she is wrong

Fig. 6.—Case of melancholia with ecstasy.

because from day to day the patients around her do not acquire the disease; yet she can see the absurdity of one who daily complains that she was galvanised the night before, or of another who says the attendants are men in women's clothes. We had some little time ago in Bethlem a woman possessed by the idea that she had the itch, and

this idea caused her to object to shake hands with the doctors; and although she was at one time answered according to her folly, and at another not according to her folly, her ideas long remained unchanged, neither reason nor banter appealing to her. As far as her powers of judgment with respect to the best mode of managing a house or controlling her children were concerned, she was reasonable enough. She one night suddenly lost her delusion.

One characteristic of the melancholic patient is that his egotism is so nearly allied to that of the hypochondriac, and in Edgar Allan Poe's words, "He is doubting, dreaming dreams no mortals ever dared to dream before;" so that a patient suffering from melancholia will describe himself as being the only one who has had such experiences. The very charm of texts in Scripture about the unpardonable sin is that there was to be but one castaway. If there had been hundreds of unpardonable sinners it would not have appealed to the insane any more than the general statement that we are all sinners, or, as the Psalmist said in his haste, "all liars." The egotism of melancholy is very well shown in the graphic letter which I insert here:

"Vous êtes trop bonne envers moi qui ne mérite pas la moindre considération. Si vous pouvez cependant venir encore une fois me voir ici je vous serai bien obligée. Il ne faut pas attendre, ma chère amie, que je retourne dans le monde. Je suis trop méchante même pour cela, et si pour ce monde, alors certainement pour le ciel. J'ai quitté, d'une manière la plus impie, ma propre position dans la société; ce ne fut jamais mon destin que d'être ici. Je m'y suis condamnée pour ma seule faute, faute inouie, je crois, dans toutes les annales

de la race humaine. Il reste chez vous quelques objets qui m'ont autrefois appartenus, et je serais bien obligée si vous vouliez avoir la bonté de les distribuer de quelque manière qu'il vous semblera bon. Tant de jolies choses que je ne reverrai jamais, des cadeaux de mes parents et de plusieurs amies, dehors chéres, tous inutiles à present. Oh! que ne puis-je aller vous voir comme dans les temps passés, et entendre votre voix douce et gaie! Vous avez été toujours si bonne et pleine d'amitié pour moi, et j'ai regretté toute votre affection. Que n'ai-je suivi votre bon exemple, alors j'aurais été aussi utile et heureuse! Les bénédictions du ciel restent sur votre tête; vous êtes du nombre des saintes qui demeurent dans les lieux qui seront pleins de la gloire et de la présence de Dieu. Pensez-vous de temps en temps à moi, misérable et seule dans les tourments de l'éternité, et sans aucune amie pour soulager mes misères! Recevez l'assurance de mon amitié, mais c'est une amitié pleine de regret.

"Votre malheureuse

"ÉLÉONORE."

The correlative of egotism is self-consciousness; and, as some have described it, the melancholiac seems "wrapped" up in himself; this expression of "self-wrapping" is a good one, and describes the condition admirably. It is impossible to define the boundary between the melancholic patient and the one who, from exaggeration of self-feeling, has become the delusional lunatic; for although the general bodily and mental symptoms of the latter differ materially from those of the former, yet they are but varying developments from a similar stock. In the one, the growth and development of ideas has gone on under a morbid influence: like that of a plant growing in a cellar, the growth

may be considerable and varied, but yet have an unhealthy colour throughout; whereas the other has ceased to develop, and remains preserved in all its grim horror by its dark surroundings.

Other points connected with the egotistical and self-conscious side are the ideas of moral and physical change and perversion. Patients describe themselves as being unnatural, as having lost all power of human love; they believe themselves to be ruined, and to be the causes of misery to those around them; or they may be crushed by the dread of an impending sorrow. I often think that the priest of Apollo, Laocoön, well represents the unpardonable sinner, and that the sword over the head of Damocles marks but the feeling of impending fate as felt by the patient suffering from melancholy.

Two other prominent symptoms are associated in the public mind with melancholia. The one, *religious mania* so-called, and the other, *suicidal* tendencies. I have referred (*see* page 53), under the head of causation of insanity, to the relationship of religious movements to insanity, and I would repeat the statement that religion rarely produces insanity, but constantly colours it. It may be said that the very fact of its occurring so frequently as a symptom, and having some relationship as an exciting cause, are sufficient evidences that it is an important element in the production of the disorder. But I would reply that the guncotton requires but a light: it matters not whether it comes from an electric spark, a steam-engine, or a silent match. The real explanation of the immense number of cases with religious ideas, suffering from melancholia, is that religion, being an undefined environment of man, lends itself readily to the explanation of the unknown. Religion begins by formulating a series of dogmata

which can in no way be disproved, and its followers are taught that they are to judge of their relationship to the great questions, not so much by their actions as by their feelings. What wonder is it, then, that, having strange feelings which they have never before experienced, they should infer that these are only to be explained on religious grounds? It does not matter much what the previous education of the patient has been. I have known a man who for twenty-five years led the life of a cultured atheist; a man whose whole energies were developed for self-gratification in every way; who was refined by his knowledge of ancient and modern literature, and by a constant intercourse with the world, yet, on becoming melancholic, he subsided into an emotionally religious man, appealing to all whom he met to look after the welfare of their souls, believing himself to be cast away for ever.

It is needless now to enlarge further on the so-called "religious mania," as it will be seen that in the great majority of cases referred to in this group there is only a strong tendency to explain their misery by means of some text or religious dogma; for instance, one patient who was desperately suicidal, was possessed with the notion that he was destined to be the second Judas Iscariot, and would have to pass through the same course as his prototype when the millennium was at hand. This patient was not only suicidal, but homicidal. As a rule, there is much greater danger from suicide in these cases than from homicide, but as it is impossible accurately to gauge the motives of an insane person, it would be dangerous to say that simply because a man is strongly suicidal he is not likely to be homicidal also. It might be said that a man who believed himself to be Judas Iscariot would have no reason to wish to kill

anyone but Christ; but this very man determined and attempted, on two occasions, to kill me, without being able to give any other reason than that he would be no worse off in the future state whether he killed me or not. This is a good example of the difficulty, if not impossibility, of calculating on the actions of an insane person, though in many respects he may appear to be nothing beyond a monomaniac.

Suicidal tendencies may arise from very different causes, just as the attempt may be made in very different ways. It is strange, in reference to this last point, that suicidal patients should have favourite methods of putting an end to their lives, and that they will even avoid danger in order to accomplish their end. In this way I have known a patient extremely well-behaved while at our convalescent home, who appeared to have forgotten all about his desire to kill himself until he was discharged, when, avoiding river and railway, he blew his brains out with a revolver, having first attempted to kill himself in this manner before his admission into the hospital. It is narrated also that a patient escaped from an asylum and swam a river, and then threw himself under a railway train. The monotony of their thoughts thus persists and shows itself even in attempts at self-destruction. Patients may commit suicide to get rid of the bodily or mental misery from which they suffer; it is thus with certain hypochondriacs. They may commit suicide because they believe themselves too bad to live, or because they think their influence is spiritually or physically contaminating. They may kill themselves because "voices" urge them to do so, or tell them they are too cowardly to dare to die; ideas of being followed or persecuted often cause suicide; patients may achieve the same end because they believe they have to

bear the sins and sorrows of the world; or believing they are already dead, or utterly changed and unnatural, they consider that throwing themselves into the river is but getting rid of a dead and decaying body. The dread of vivisection and the horror of hearing the cries of their relations, who they think are being tortured, make patients desperately suicidal. Later in this chapter the subject of suicide is referred to in detail (p. 189).

It is difficult to give every possible cause or idea which may lead to suicide. The above, however, point out sufficiently the chief causes which may give rise to attempts at suicide in patients suffering from melancholia; for it must be remembered that patients may kill themselves when suffering from other forms of mental disease as well as melancholia. The maniac may throw himself from a height, because he believes that angels bear him up; or the general paralytic, with all his fulness of happiness, may cause his own death in his attempt to show his immortality.

Melancholia having now been considered generally in its bodily and mental aspects, and having been subdivided into convenient groups, it remains for me to describe more fully its general pathology and ætiology, its course and the results following it.

Melancholia may be the mental side of bodily disease. In certain temperaments change in the nutrition of the brain depending on some general or local disease may set up mental pain. The mental machine no longer acting smoothly, there is friction and imperfect action.

Melancholia is common in conditions of physical weakness apart from organic disease.

Exhaustion, or drain on the nervous system, may set up the disordered process.

Not only is direct drain a cause of melancholia,

but any cause, bodily or mental, which worries the body or the mind, any cause which by its constancy, or by its frequent repetition, gives no chance of repair, may also cause melancholia.

In some cases toxic materials in the blood will act in the same way.

Just as mania was pointed out to be a condition of weakness with loss of control, so melancholia is a state of painful self-conscious weakness.

Melancholia may in its course be progressive, passing from a vague feeling of inexplicable unhappiness through a stage of more profound misery to one of the deepest woe.

Melancholia may consist of a series of fits of depression of greater or less intensity separated by periods of mental health.

As I have already stated, melancholia may be the initial stage of any form of mental disorder.

Melancholia may suddenly pass off, or it may gradually clear up.

In most cases the recovery from melancholia is associated with improvement in general health.

Slow, steady recovery is especially common in young, otherwise healthy people, and in those in whom the melancholy has been but an exaggeration of a natural physical or moral depression. Thus it was with a man who slowly became possessed with the idea that he had been the cause of his wife's death, and who, in consequence, was sleepless, suicidal, and lachrymose for weeks; but when he began to sleep better and to assume a more healthy aspect, bodily and facially, he gradually lost these ideas, and mentally and physically became well. In other cases the attacks of depression go and come for a time, gradually becoming more pronounced, and in such cases considerable risk is run and fatal accidents occur. Thus, a woman I once saw in the country was suffering from mental

depression that had followed the death of her husband, which left her in poor circumstances. She was living in a solitary, out-of-the-way house. She was depressed for some days, and then set about her household duties as before. Again depression came on, and her friends grew alarmed. I saw her, and warned them of the danger of leaving her alone. The magistrate was informed of her condition, but when he visited her she was again quiet, and he declined to act in the matter. Within a week she hanged herself in the barn. In such cases, in women, it is particularly noteworthy that the chief danger occurs about the menstrual periods. Cases with recurrences of this kind, if treated sufficiently early, may go through the inverse process, having slighter recurrences at longer intervals till they completely recover.

Some cases recover suddenly, and these cases are even more difficult to explain than similar ones met with in acute mania and hysteria. I have known a patient with delusional melancholia fall asleep and wake up to find the cloud gone. And I have known a person who, convinced of the faithlessness of his wife, constructed a whole romance of circumstantial evidence which completely misled me into believing that it was possible that he was after all rather sinned against than deluded, and who lost the whole of this airy fabric when leave of absence was granted to him and his home environments were re-established. Not only may delusions pass off suddenly, but the gloom of melancholy may also lift itself as a cloud from a valley. One patient, who was in Bethlem for fifteen months, standing like a veritable statue of woe, neither speaking nor eating, nor allowing anything to be done for him that he could avoid, when being removed as "uncured" from the asylum suddenly woke up, conversed freely, and remained

well for twelve years, after the lapse of which time he was brought back to Bethlem in a similar condition. Having, however, become wiser by former experience, we did not on this occasion allow him to become mentally rigid; but by means of sending him for drives, and for a few hours at a time restoring his home associations, we were enabled a second time to discharge him, and this time as "cured." I shall give other examples of the more or less sudden cures which may occur in melancholia.

Others may pass from melancholy with stupor as an active disorder, into a state of stolid misery, in which the miserable aspect is rather the indication of the misery which has been felt than an index to the feelings at the time.

Cases illustrative of chronic recurrent melancholia are given under chronic insanity (Chapter XI.).

Melancholia may end in *secondary dementia*, and in all large asylums there are sure to be found many patients, often useful helps in the wards, who have passed through attacks of mental misery. Such patients may, in their weak-minded state, show no signs of their old disorder or of their old delusions; they may show few or many scars as the result of the fights they have passed through; and it may be impossible to say what was the nature of the first attack, whether maniacal or melancholic.

Melancholia often ends in death. A certain number of young cases die of "broken heart;" and I suppose the best way of describing this mode of death is to call it simple melancholia.

Patients are admitted into Bethlem who refuse food obstinately, are timid, and suspicious. Many such die of some bodily disease other than that of the brain, notwithstanding constant care and feeding.

These are often young girls who refuse food because they are unworthy, or because they feel unnatural. In these cases there is often lung disease, which may be the cause of the whole of the mental disorder, or I believe that the impaired nervous state may lead to low forms of inflammation of the lungs which end fatally.

I have met, too, with tubercular disease of the kidneys and other visceral diseases in similar cases. In an old man who was admitted with profound melancholia, and with the idea that he was dying, and therefore ought not to be cared for, we found there was old peritonitis, due to perforation of the appendix cæci, which, without giving rise to any physical signs, had caused the production of half-a-gallon of pus. Other cases of melancholia die, and it has been found post mortem that their symptoms depended on general paralysis of the insane, which had not been recognised owing to the silence and the obstinacy of the patient.

So that I end this part as I began it, by repeating that melancholia may be the mental symptom of bodily disease.

SPECIAL FORMS OF MELANCHOLIA.

1. Simple melancholia.—It is of the utmost importance that mental disorders should be recognised as early as possible, and in studying the condition which I have called simple melancholia, I shall insist on the necessity of recognising it as a stage of disorder which, if neglected, may become chronic and incurable.

I have described a group of cases under the head of *acute mania* in which the chief, if not the only symptoms were slight alterations in the social relationships of the individual; and under *melancholia* I must place those with slight perversions of feeling and intellect of a gloomy nature. In

the first group they acted in an eccentric way, so that those who had been steady and industrious became amorous and given to drink and self-indulgence. With the simply melancholic patients we meet with every shade of depression, which either may be dependent upon some traceable bodily disease, such as phthisis, or may arise from some bodily disorder. The patients to whom I refer very commonly have insane relations, and are, in fact, unstable. Such cases are very commonly met with in the young of both sexes; but they also occur in middle and advancing life in persons who are doing their life's work energetically and well. It is common for physicians to be consulted for symptoms of melancholia by active-minded busy men, who have really exhausted themselves by overstrain rather than by over-work; and many such cases not only recover, but live to rise high in their respective professions; though as a rule their mental flaw prevents the very best being done by them. Melancholic depression of this kind affects each individual differently; some are wretched, being occupied with their own feelings of misery, but without delusions. They resemble, in many points, the ordinary hypochondriac, save that they are more content to be left alone, and are not desirous of pouring their woes into every ear; and their woes are mental, not physical.

The younger cases begin much in the following way: A young man of about twenty years of age, having entered some business or calling without any definite desire to follow that avocation, sticks to it conscientiously for a time, but without the interest and enthusiasm which are natural to youth. He often takes to brooding and wishing he was something else; but family requirements keep him where he is. He is at the same time leading a quiet and unhealthily reserved life. When away from

work he has no special hobby, and drifts into idle speculations. If he happen to have indulged in masturbation he becomes worse; he takes a long time in undressing and getting into bed, and is equally long in rising and washing in the morning. He displays a want of crispness and energy in every act which is not automatic. He frequently, at this time, takes to reading theological and medical books, and some morning astonishes his friends by an outburst of tears, or by marked irritability and change in his temper. He may make some attempt to throw off the bondage which he feels is holding him, but unless his condition be recognised and his surroundings entirely changed, he will probably pass into a more profound stage of melancholy. He feels weak, disgusted with himself, thinks that he is unlike other youths, and that there must be something radically wrong because he has no feelings of sympathy or love for anyone in the world. He may express himself as feeling dead. Such patients will frequently make a confidant of the doctor, and express every anxiety to recover, but at the same time acknowledge themselves unable to make an effort.

There is but one method of treating such cases. For a time let them be rooted up and allowed to move from place to place, or if means are wanting, let some change of occupation be sought; I would also recommend some mechanical occupation, such as work at the bench, on the farm, or such like. Voyages are undoubtedly serviceable; but then there is always some risk that these patients may become suicidal, and therefore it would be unwise to send them to sea, unless under careful charge. Occupation, interest, and change, associated with cold baths, sea-bathing, regular muscular exercise, and a liberal diet with stimulants taken with the meals, frequently pro-

duce beneficial results. It is, however, of great importance to remember that as this morbid condition has been slowly establishing itself, so it cannot be expected to pass off very rapidly, and a period of from four to twelve months is necessary to effect a cure. If the case, instead of improving, become worse, we have an example of a form of simple insanity, which may require asylum treatment; for these cases should not at first be sent to asylums, treatment in the homes of medical men or of tutors being preferable. As soon as a young patient threatens to commit suicide, it is time to consider the question of removing him to an asylum. The other symptom which often necessitates the seclusion of such patients is that of refusing food.

Further examples of this simple melancholia are found in young girls who come into the asylum with the very worst characters as far as suicidal tendencies are concerned. I must own that there is much more cry than wolf, in my experience; for although I have seen very many such cases, one half of whom have been said to have attempted suicide even while in the hospital, the attempts were altogether futile. Many patients of this kind may at once set to work to pick a hole in a vein with a pin, to choke themselves with a pocket-handkerchief, to drown themselves by holding their faces in a wash-basin, or even attempt self-destruction by what they call swallowing their tongues. I would not willingly throw the attendants on such cases off their guard, but I would here register my experience that suicide is very rarely effected by them.

In these young women there is either restlessness and inability to work, or stolid indifference; they are sallow in complexion, the tongue is tremulous, often flabby and coated, appetite bad, food

often refused, bowels confined, circulation feeble, and menstruation absent. Tonics, change, and exercise cure the majority of them.

Sex influences the aspect of cases of simple melancholia. Some pass gradually into more severe types of melancholia, and in these delusions may exist. I shall consider later some cases which may be looked upon as connecting links in the chain of disorder.

Among men we meet with patients whose misery has become excessive, though unassociated with delusion; they may be desperately suicidal from sheer distress, or they may feel driven to do insane acts through what they call "influence." They are weak of will, and are driven like a leaf on a rapid stream.

Simple melancholia passing into melancholia with delusions.—W. H., single, aged nineteen. No insanity in his family, but phthisis killed several on his father's side. He had a first attack when seventeen, but recovered, and has been well since. Masturbation, if not the cause, was an early symptom of the disease. Two months before admission he became irritable and lazy, and would not get up in time for his business. He complained of pains at the top of his head. He became stolid, but without delusions. He refused food, was restless and sleepless. His expression was dull. Slowly he developed the idea that he had committed the unpardonable sin. He had visions and hallucinations of hearing and of taste. He believed he was going to die. Pupils widely dilated; extremities cold. On admission he was obstinate, and neglected his bladder and bowels; his expression was dull and his general health feeble.

He had to be fed with the stomach-pump, and was constantly wet and dirty. He began to take food within a week, and in two weeks had begun

to show signs of returning sanity; in three weeks he appeared well, but a month from admission he once more passed into a state of melancholia, from which he again recovered. These recurrences were of slighter degree, till in the end he was discharged well for the second time.

Such a case resembles those already described, in which the patients oscillate between acute mania and health for some time before they become stable. Advantage should always be taken of the periods of health to try change in the surroundings, although relapses may occur.

Example of destructive and suicidal excitement in a youth.—A lad of twenty years old, who was brought up purely at home among female relations, developed habits of self-contemplation and of masturbation, which rendered him weak, nervous, emotional, and unfit for his ordinary avocations. He gave way to several emotional storms, in one of which he destroyed a good deal of furniture, and seriously lacerated his hands. He was admitted into Bethlem tied hand and foot, with the usual history that he must not be left a minute. For a few days he was very much excited, and gave way to masturbation to excess. Besides this, he was dirty in his bedroom, and on one occasion he drank the contents of his chamber. When spoken to he said he was obliged to do this, but he declared that no voices or other indications from without made him act as he did, but that he "felt he must." It is common to meet with weakly cases who say they are influenced; they feel that when doing a thing they do not themselves exercise any volition. By means of employment and getting him interested in his old occupations and amusements, among which were music and chess, he rapidly regained general tone, and passed into a state of convalescence.

Among women we meet with very similar cases, such as the following: An artist's daughter, whose education had been somewhat irregularly carried on, whose physical development was feeble, and whose inheritance was neurotic, at the age of twenty became disturbed in mind and body. Menstruation ceased to be regular, her appetite failed, she slept badly and became indolent, irritable, and restless. The symptoms slowly increased. She fancied herself unworthy to live, a disgrace to her family, and one who was bound to cause harm to her relations. She was convinced that she was unnatural in mind and body; that she was without natural affection for God or man, and that it was but wasted kindness in her friends to try and "cure her." A complete change in the surroundings, a regular diet, and constant exercise, with medical treatment of the amenorrhœa, produced great improvement in her physical condition, and the mental cloud thinned, till it disappeared altogether, leaving her once more a bright and happy girl.

It would be useless to enlarge further upon such cases, it being acknowledged that a certain number may be treated at home; that more may be treated in a private house where complete separation from relations is ensured, and others must be sent to asylums and hospitals, either because the home circumstances are not suitable for their treatment, or because the patient's condition from suicidal tendencies or refusal of food necessitates extra and skilled care.

Cases of simple melancholia may occur, as I have said, in middle life. Thus a strong, vigorous man, who had engaged in some fresh speculations, involving the greater part of his fortune, found that the venture was not so successful as he expected. He was distressed at the thought that his

newly-married wife might have to face difficulties, if not poverty. These causes started sleeplessness and a tendency to worry; his appetite failed, and he suffered from dyspepsia and constipation. For a time he took to keeping a bottle of sherry in his office, and supported himself by nips, till, having over-drawn his physical account, he failed utterly, and his wife and friends were alarmed to find him collapsed as it were, and unable to rouse himself from his chair. No vital interest and no affection seemed to exist in him. He neglected important business, and irritably refused to be fed or to be doctored. Certain threats of suicide rendered it necessary that he should be watched, and a very few weeks of removal from home, with careful medical and general treatment, restored him to his family, among whom he has since lived, and continues to follow his occupation.

In another case a woman, who had had a large family rather rapidly, passed into a weak physical condition, having no appetite and sleeping badly. She talked in such a very casual way about self-destruction, and her want of affection for her children, that her friends became alarmed, and a doctor who saw her recommended them to apply for admission into Bethlem. She came with her husband to see me, and I decided that before sending her into an asylum it would be better to try general treatment; for I found that, associated with prolonged lactation, there had followed menstrual irregularity, and finally amenorrhœa, which had persisted for nine months. Warning the friends of the danger, and showing the necessity of constantly having a companion with her, I commenced treatment by means of Griffiths' mixture. Weeks passed, during which she returned regularly; but although improved in health, her mind remained dull and oppressed. She told me that

she went about her work like a machine; that she did not care what happened to her children; that she had no affection whatever for them; that she understood one was at that time dying of bronchitis, but she did not care. On a subsequent visit she said the child had died, and still she did not care, and surely I must admit she was unnatural after that. Other medicines were tried without avail, till I put her on arsenic, which she continued in increasing doses for several weeks; one morning she came into my room, with a completely altered aspect, and at once exclaimed, "Well, doctor, I am natural again." I asked her, "Since when?" She replied, "As soon as I became regular." These slighter conditions of melancholia associated with feelings of not being natural, occur very constantly in cases of amenorrhœa. As we may meet with amenorrhœa lasting some time after the re-establishment of the general health in nervous cases, so simple melancholia may be the last symptom to leave before the complete mental recovery.

In older persons simple mental depression occurs, associated with the earlier stages of senile degeneration; generally, apathy, indolence, and the dread of some unknown calamity are the symptoms, and the chief danger is suicide. The treatment must be palliative; as a rule there is little prospect of perfect recovery in such cases, for though a fresh intellectual balance may be established, it is one of a less developed or complex character.

2. Active melancholia (*Melancholia agitata*).—This name fairly describes the disorder, and I should say it occurs mostly in women and men of middle age, and of advancing years. It is characterised by restless misery, as seen in the constant picking of fingers, pulling out of hair, and a tendency to strike or damage anything that appears to be an obstacle to its free exhibition.

Generally in women there is some marked delusion, and most commonly this delusion is connected with the idea that someone else is going to be injured on their account. The delusion may shift according to the surroundings; thus, one woman

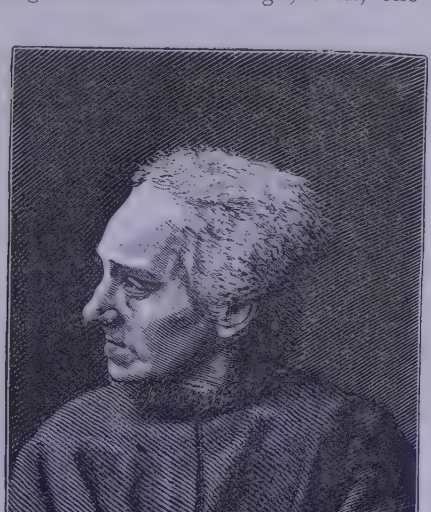

Fig. 7.—Case of active melancholia.

in Bethlem, when at home, believed she would cause the ruin and death of her relations, and that, in consequence, she must be killed. When admitted, her idea was that the doctor's child must be crucified through her, because it was the babe of Bethlehem.

In another case the patient moved restlessly

about moaning, and worrying everyone she came in contact with; she thought her friends were accused of having done things which were disgraceful, and she constantly repeated that she was "mixed," and that it was not their fault. In this way two years passed, and the only prospect of recovery lay in the fact that she was still capable of being recalled to her old ideas, and induced to play the piano, to speak French or German, and to recognise visitors. Thus there was groundwork upon which an intellectual fabric might be re-established.

One young woman admitted into Bethlem after her first confinement, which was a tedious and instrumental one, became deeply melancholic within two months of the birth of her child, having been sleepless, and oppressed by the idea that she was going to die, this feeling being most marked in the early morning; she became suicidal and violent, refused food, said she was inhumanly wicked, that she had ruined her husband, and ought to be got rid of. After admission she would rush up and down the wards, moaning, and pushing furniture or patients about. She seemed so lost to sensibility that she picked the greater part of her finger-nails off with pins.

The treatment of this case was by repeated small doses of morphia, with occasional saline aperients, and within six months she completely recovered, and returned to her home. Many of these cases of active melancholia do not recover, some wearing themselves out rapidly by their constant sleepless activity; such patients cannot be well treated out of an asylum, as they are often violent and destructive, besides being hard to manage. Some pass into a state of automatic misery, and in most asylums such cases as the one now to be described are to be seen.

A woman was admitted into Bethlem whose

two sisters also had suffered from melancholy; she was forty-five years of age, and single, had had several previous attacks of mental depression, and when admitted was suffering from the most marked active melancholia I have ever seen. She would keep on rocking backward and forward, moaning that she did not know what to do. Day by day this went on, and the tone of her voice kept constantly getting harsher and louder. At first she wasted, and it appeared likely she would wear herself out. She, however, began to take food in abundance, gained flesh, and slept better. The prognosis certainly became graver as far as mental relief was concerned, bodily gain without mental gain being generally of unfavourable import. In her case the repetition of the formula, "I don't know what to do," had become perfectly automatic, and went on without distressing her. It was noteworthy that on one occasion, on a cold frosty morning, an attendant, more hasty than considerate, said to her, "If you don't know what to do, I do; and if you make much more noise I shall send you out in the grounds." The patient, without any change in her expression, lowered the tone of her complaint, and for the rest of her stay never returned to the trying pitch of her first wail. After many years she was still the same.

Some patients, suffering from active melancholia, have hallucinations of hearing or of sight; but I should say that in the majority of cases they have simple delusions arising from the feelings of melancholy. Such cases may be suicidal; but I do not consider these nearly so likely to injure themselves as the more stolid cases to be referred to later. No general treatment can be recommended for all. In the younger cases, suitable tonics, such as arsenic, zinc, and iron, with stimulants, a liberal diet and exercise, have proved beneficial.

As regards the last, however, the remarks on treatment under mania may be referred to. I do not often use morphia, bromide of potassium, or chloral hydrate in these cases, but in older cases, and in those connected with the climacteric, I find morphia by mouth or subcutaneously, in repeated and increasing doses, sometimes beneficial. However, I would warn those using this remedy not to be misled by the temporary improvement, for frequently cases progress favourably for a time, only to relapse when the remedy is discontinued; and I have known a habit of taking morphia to be started in an asylum.

3. Passive melancholia.—Patients in this class differ greatly from the last, as far as appearances are concerned. There is a direct series leading from simple melancholy through passive melancholia into melancholy with stupor. And it is open to doubt whether most cases described as acute dementia are not rather to be looked upon as cases belonging to the last variety.

Passive melancholia may arise, as may the other varieties, from acute or chronic causes. It may occur in men or women, in young or old. But the majority of the cases that are seen in Bethlem are between 40 and 60. The incidence is generally slow, there being a gradual failing in physical health, while frequent complaints of dyspepsia and sleeplessness are made. Listlessness and an aspect of anxiety, restless worry, or jealousy, are often the first objective signs. These become more marked, and some trivial circumstance establishes the fact that the person is suffering from delusions. She may suddenly accuse her husband of wishing to poison her, or reprove him for not interfering with those who are annoying or injuring her. A dream of horror may seem to precipitate the illness; or, what is a common experience with

me is, that a middle-aged woman nursing a relation or friend who has died becomes haunted by the idea that she has caused his death. Hallucinations, especially of hearing, may appear; she hears voices of demons tempting her to evil, jeers of spirits or of men deriding her or accusing her of unworthiness. The bodily health suffers in an equal degree with the mental; suicidal tendencies develop themselves, and not unfrequently desire arises to kill the children, if there be any, to save them from further chance of misery. A more pronounced variety of the same condition is met with in

4. Melancholia with stupor.—In this the patients are speechless and passive, but with an aspect of misery. The chief point is the more or less complete loss of reaction to external stimuli, as the result of oppression from dread or from complete subordination of all intellectual life to a feeling of terror.

I believe there are two distinct mental conditions occurring in melancholia with stupor; in one there is, as it were, prolonged panic. I know many persons who, under suddenly terrifying circumstances, become powerless to move even for self-preservation, and one group suffering from melancholy with stupor seem in a condition very similar to this.

In the other class we meet with patients who form a very definite idea of an impending evil. It may vary from spiritual destruction to bodily annihilation.

In melancholia with stupor we have an affective disturbance (depression) with obstruction of association-processes and of volition. Depression may vary within wide limits, and so may the obstruction referred to; when the latter is at its height the result is pronounced stupor. Such affective disorder and obstruction may be about equally

developed, or the one morbid process more developed than the other, so that we see degrees of melancholia with stupor, sometimes the depression, at other times the stupor being the more pro-

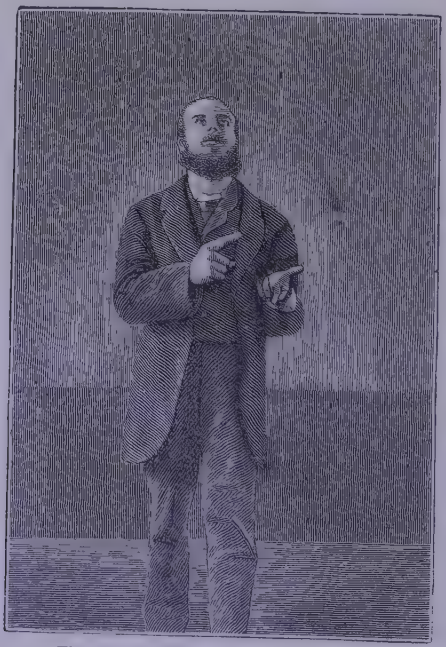

Fig. 8.—Case of cataleptic melancholia.

nounced. In many cases of melancholia with stupor the patients are able on recovery to give some description of their mental state when ill; they have memory. People about the patient often appear to him as enemies, either as his executioners, or as sent to torture or remove him; or

he may have a dream-like idea that he is in a strange world and that the people about him are not inhabitants of the earth at all. The face may depict misery or apprehension; or it may be wanting in expression, according to the degrees in which the psychical disturbances referred to exist. There is frequently muscular rigidity. The patient resists everything done for him, so that it takes two or three persons to dress and undress, and as many to feed him. In other cases we meet with catalepsy, more or less complete. I have rarely met with this condition in a very fully developed form, but at the same time it is rare to be without some case of partial catalepsy at Bethlem.

These patients invariably have other accompanying physical symptoms, such as cold, livid extremities, swollen ankles and feet, from impaired circulation and immobility, excessive flow of nasal mucus, and general disregard of their personal appearance and needs; the eyes are often directed to the ground, the lids being half closed, with a honey-like excretion exuding along the edges; the skin is often dewy or greasy and gives a feeling of coldness to the touch, and although patients with stupor do not take food freely or voluntarily, yet if they are kept warm and carefully looked after they do not emaciate. Their temperature is readily affected by their surroundings. There is no evidence externally of intellectual action, but they exhibit will in so far as they resist interference. Anæsthesia is not as common as might be supposed. Reaction may be very slow and imperfect, but patients have told me on recovery that they felt the prick which I had given them, although they did not flinch. The special sensations are confused and dull.

This condition probably is best represented by a profound dream or nightmare. The prognosis in

such cases is not favourable, but few recovering. The condition is certainly as common in young men as in young women. Certain cases live for years in much the same condition, having to be washed, dressed, fed, and tended like young children, while others die of some inter-current trouble, most frequently phthisis. Fright may be the cause of this condition. Thus I have known a young sailor whose melancholic stupor followed shipwreck and fire, both occurring on his first voyage. In another case a false accusation and loss of situation was the cause. In another an attempted rape was the direct origin of the attack; and a fourth followed brutality or excess on the part of a husband on the marriage night.

RELATIONSHIPS OF MELANCHOLIA.

1. Melancholia with delusions.—Having already considered simple melancholia, active and passive melancholia, and melancholia with stupor, I shall proceed to notice first the relationships of melancholy to delusions, hallucinations, and other sense-perversions; secondly, cases specially suicidal; thirdly, those which have been called religious melancholiacs; fourthly, melancholia as connected with certain periods of life, such as the climacteric and senility; fifthly, cases of retarded recovery.

The feeling of mental depression is like a cloud 'twixt sun and earth; it slowly settles upon a mind, gradually blotting out the light of hope and desire, and leaves it ready to pass under any depressing influence. There has been seen to be a dulling of the whole life, and this becomes more and more pronounced till every part of the being reacts slowly and painfully. This, in its earliest state, is that of simple melancholia, which I have already described; but a further stage may be developed, so that a patient, feeling wretched and

utterly unlike himself, seeks for some explanation of the state. It has been said that wise men investigate while fools explain; and I am sure that none are so ready to explain as the insane.

The explanation of his miseries given by the patient suffering from melancholia depends to a great extent upon his inheritance, his education, and his surroundings at the time of his illness. The explanation may be a direct development, as seen in the emotional girl who has been brought up in the midst of enthusiastic Dissenters, and thinks her state is produced by the neglect of religious ordinances of which she has heard so much. Or it may be in direct antagonism to the past life; thus, the man who has lived a worldly, careless life, when he is melancholic, turns to religion for an explanation. The anxious mother may explain her misery by imagining that her children are suffering or are in danger, while the merchant dreads insolvency, and the old man fears loss of reputation and the workhouse.

There follows a good example of the way in which delusions of this kind arise. A farmer in England finds the times against him. He has a large and increasing family with yearly reduction of capital. Rather than lose everything, he determines to realise the property still remaining to him, and try his fortune in another land. He sells his stock, and leaving his wife (who is six months pregnant) with her family in England, he proceeds to New Zealand. The money he left for his wife was sufficient to last a year or so, but the anxious pregnant woman, fearing something might happen to him or his funds, saves and pinches, not supplying herself with food necessary for her condition. She works constantly for her children, even up to the time of her delivery, and, refusing extra diet, she leaves her bed to resume her domestic duties

far too soon. Here, then, we have physical causes of weakness associated with constant mental anxiety, and as a result, depression and sleeplessness, the two becoming more pronounced, till at last she refuses food, having the conviction that there is no more food to spare in the world, and that everything she eats is reducing the small stock that is to maintain humanity. Similar growths of delusions may constantly be witnessed.

As another example I would refer to a man who, being entitled to a sum of money, which he accepted instead of a pension, started a business for his only son. He had no sooner done this than he was impressed with the risk he now ran of dying in poverty, there being no longer a certainty of an income when he was beyond work. Slowly but surely the misery wrought upon him, till, passing through the vague period of unexplained wretchedness, he became possessed with the idea that he was ruined, friendless, and a beggar, and must be thrust out into the streets.

Autobiographical sketch of melancholia, and recovery.—"I am thirty-two years of age, and have been married ten years. I was forewoman in a silk warehouse in the city. While there I suffered from pleurisy in the side, which was thought to be caused by carrying heavy things. I also suffered from headache during the whole ten years I was so employed. My employers failed in business, and soon afterwards I married. I was of very active habits and excitable temperament. After marriage I missed the active life I was accustomed to in the city, and became somewhat melancholy, and suffered slightly from headache. I had four children within four and a half years, and then six years elapsed without any addition to my family. I then had another child, whom I lost when he was six years old. Shortly before his death, my

neighbour induced my landlord to give my husband notice to quit, but this notice was not carried out. I was at home all day alone, my husband following his occupation. This notice to quit gave me a shock, and the death of my child, soon afterwards following, intensified it. During my previous confinements, I had had upsets, particularly in the second one. I then saw the antimacassar around the looking-glass in my bedroom on fire. I screamed, and was queer from that time, but recovered and had another child. This, the last confinement, was a very bad one, the baby being very large. I now became exceedingly nervous, and dreaded someone was coming to arrest me for a murder I had committed. This delusion continued about three months, and my child had to be fed by bottle, my milk having stopped. I did not believe my child was dead. I always had the sensation of falling into a deep black place. This lasted night and day for three weeks, the death of my child having so much affected me. I underwent medical treatment at my home, but derived no benefit therefrom.

"I was then brought to Bethlem in May, 1883, having the idea that I was being taken to a museum. As soon as I entered Bethlem (not knowing it was an asylum), I screamed, thinking that steam was coming from a boiler. I was taken to a padded room, and soon after the paroxysm left me I felt relieved. I laboured under the idea that all who were in the asylum were transformed into dogs, and the feeling I experienced was like sulphur rising in me. My food tasted as bitter as wormwood. Those particular delusions lasted about two months. I used to watch the patients all night, thinking they were going to fly on me and devour me. In this way I was without sleep for nearly two months,

restless, got out of bed, and walked about. The delusion then took another turn in the shape of my imagining that the woman who induced my landlord to give me notice to quit was in collusion with God, and that I was God; and every time I went to see her she hid behind the garden. I thought all the people in the asylum were there for twelve months playing their part until the judgment day, when they would be saved from their sins. I also thought that all the world was a delusion. The night I was put into the padded room I kept running about, thinking that the padding was going to give way. I also imagined that all the food was poison, so refused to take it. The day I looked at my tongue and eyes, I said that they were to be taken out; I thought God had ordained it. I was always groaning and crying, alleging that it was my fate to go through these dreadful things, and that the day would arrive when I should be crucified, and that when I went to bed I should be summoned during the night to go through it. I also had a delusion that my husband and my family were in Bethlem, and that I was Christ. I never told my delusions to anyone, until after being in Bethlem two months, when I mentioned them to a patient who slept in the same room with me. On that occasion I asked her if I was Christ, and the patient replied, 'No! do you think a poor woman like you is Christ?' I have lost my delusions, and was sent to the convalescent home about six weeks ago, and have returned recovered. I now sleep well throughout the night, sometimes dreaming of my child. I enjoy my dinner and supper, but cannot eat in the morning.

"I am not the same person since I had the cholera when I was fifteen years old. At first, when friends came to see me in Bethlem I used

to cry and did not care to see them, as I imagined they were not my own friends; but now I receive their visits with extreme pleasure, and feel sorry when they are going away, and their departure does not affect me afterwards. My mother's brother died at Hanwell; my sister died at the White House, Bethnal Green (this sister having had a fright when a child), and another sister was also there soon after her confinement. I have a cousin (my father's brother's son) now in Colney Hatch. All my sisters and my mother suffered from headache. I was not afraid of any of them, and would do anything to help them. I was discharged recovered."

These examples show what I mean when I say that (as chemists might put it), there being a saturated solution of misery, a crystal forms with a definite outline. In a few cases undoubtedly the melancholy follows some delusion, but as a rule the delusion has been started by some slowly developed morbid process. It is natural that a man should be melancholic who believes that he has lost his inside, or that there are wild beasts within him; and the woman who believes that she is nightly injured, threatened, or assaulted, becomes miserable and depressed. Thus, a woman in Bethlem, who believed that evil spirits came to her room and abused her sexually, became desperately suicidal. The delusions were marked before the other melancholic symptoms exhibited themselves; but in tracing back we find that the delusions had their origin in some hallucination of the senses.

2. Melancholia with suicidal tendencies.—Suicide has been referred to when considering the general symptoms of melancholia; and although I object to classify cases purely from the existence of one symptom, yet, when we remember the great social and general importance attached

to suicide, I think it deserves consideration rather more in detail than many other special symptoms. We have seen that ideas of self-destruction may arise from various feelings bodily and mental, and I know no special class characteristics which would enable me to say there is a special suicidal insanity. Suicide is met with more frequently at an earlier age among members of the more emotional races than with us in England, and it is not uncommon in France and Italy for sentimental children to drown themselves because of a rebuke or the loss of a pet, or in consequence of some trivial neglect or supposed insult. Occasionally in England schoolboys will kill themselves from some slight disturbing cause. As age increases, the tendency to commit suicide increases also, and it will be seen from statistics that there is scarcely any limit to the age at which men may get tired of life. Men and women both commit suicide, but there are certain favourite methods which each sex prefers. A man will cut his throat or blow his brains out, while a woman will hang or drown herself. It has even been shown that seasons of the year affect the mode and number of suicides.

For my part, I find it hard to agree with the verdict of English society, that every person who takes his life is necessarily a lunatic. That a man in killing himself is generally doing an unreasonable act I admit, but that this act connotes a general intellectual disturbance, which can be fairly grouped under any pathological heading, I doubt. To act on impulse is unreasonable, but many of our best, as well as some of our worst, actions follow impulse, and suicide too may result from impulse. Suicide may be carefully thought out; thus I have seen one patient at least, who, having most carefully considered whether his children would be pecuniarily benefited if he died, finding

that they would certainly be better off by his death, took the most cool and deliberate means to effect his end. Although he ought to have died from his wounds, he did not, and it turned out that he had miscalculated his pecuniary relationships.

There are cases in every asylum for which special provision is required, and it will be well to give examples. Such cases are generally of insane inheritance. Frequently suicidal tendencies have been transmitted from father to son; and, as in the causation of insanity I referred to direct inheritance, and gave as an example the suicidal tendency, I would repeat that nothing has struck me more than the histories I have received of direct suicidal inheritance.

Suicidal tendencies are most marked in the early morning. The most suicidal patients, in my experience, are those who believe that they are to be injured. There seems to be a feeling of horror which drives them to distraction, and makes them prefer suicide to persecution. In one young woman in Bethlem the tendency to suicide was extreme, and being prevented in every ordinary way from injuring herself, she tried to destroy her life by swallowing broken china, buttons, corks, horse-hair, and every available irritating substance she could get access to. These insane acts proved to be the means of her recovery, for the collection of foreign bodies in her stomach set up such violent pain and colic that they were only relieved by a large dose of calomel, which brought away the irritating matters and left her free from pain and delusions.

Another good example of an extremely suicidal patient is that of a man admitted to Bethlem in the early part of 1883. His insanity was strongly marked on the mother's side. He had received two or three severe injuries in railway

accidents during his life, and was lame. He was employed as signalman in a very quiet place, where the number of hours he was on duty debarred him from having much companionship, most of his time being spent in waiting and watching. Naturally a man of nervous disposition by inheritance, and rendered more unstable by physical weakness and maiming, he dwelt upon his misfortunes, which increased in magnitude as he contemplated them. The morbid mental growth developed, and he became impressed with the idea that his wife and children were being injured. He had hallucinations of hearing, and was constantly horrified by the voices of his wife and children, who were being, as he thought, tortured. In this condition he was brought to Bethlem, and for some two or three weeks he caused great anxiety. His general health was attended to, and he was encouraged to do little jobs about the ward. His interest was aroused, his wife and children were allowed to see him and write to him frequently, and with the bodily improvement confidence became re-established, and after a few weeks' residence at the convalescent home he was discharged well, having been under treatment only some seven weeks.

In another case, a single man, thirty years old, a decorator and grainer, without any known insane inheritance, began to fail in general health some two or three years before he was admitted to Bethlem. He had hæmoptysis with cough and loss of flesh, but there were no evident signs of phthisis. He became despondent about his condition, was restless, and made several attempts at self-destruction. He grew weaker and more nervous, was haunted by voices talking at him, and annoyed by unpleasant smells, in consequence of which he refused animal food. He took a great dislike to all

his relatives, thinking they were in league against him. On admission he was a thin, anxious, worried-looking man, suffering still from an injury produced by his having thrown himself under a railway train. While in the hospital he varied considerably, at one time rapidly losing flesh, and bringing up considerable quantities of blood, at which times he generally was more amenable to treatment and discipline. When these attacks passed off, and he again recovered his general health, his mind became distressed, and he was once more troubled by hallucinations, in consequence of which he refused his food. He had to be fed constantly with the stomach pump, but after several remissions he steadily began to improve both in body and in mind, and at length became sane and in fair bodily condition. His case is an example of suicidal tendencies depending upon physical weakness and bodily disease, the removal of which allows the disappearance of the suicidal tendency.

In the next case the suicidal tendency, which was the most troublesome symptom, has not disappeared, although the patient has suffered for over three years. He was a banker's clerk, married, and of steady habits. His mother and sister have both been insane, but have recovered, and two of his maternal uncles committed suicide. He was a German who had come to England to push his way, and by desperate energy and hard work had risen to a position of considerable trust and importance in a foreign banking-house. He had always been an exacting, self-conscious man, and in consequence of financial troubles in the city he became sleepless and irritable. He believed that the head of the firm was anxious to displace him, and that there was a conspiracy in the office to accuse him of theft. He had also hallucinations

of smell, was suspicious about his wife, and being a fond father, he thought the interests of his children were being neglected. Before admission he cut his throat severely, nearly killing himself. With difficulty his life was saved, but he was in no way to be trusted, being a source of constant anxiety and trouble. At the same time he was over-sensitive, and full of the belief that other patients wished to annoy him. Thus in a letter to me he says: "When in the lavatory, one of those present, placing himself in an unmistakable loathsome attitude, asked me if I had had a good night, a hint being conveyed to him by one of the persons sleeping in the same room in which I sleep. I mentioned it to you a long time ago, and the tricks and foul insinuations have been of constant occurrence." This patient did not recover, and the prospect is highly unfavourable. In connection with this case it is well to mention the fact that patients who are annoyed by hallucinations also suffer from what they call "these hints," and are both dangerous to themselves and to others.

I shall, under the head of delusional insanity, give the case of one who has threatened violence to others, and who says that although he considers suicide a sign of weakness, yet he fully recognises the fact that annoyances may be carried to such an extent that it would be better for him to die than to endure, and I fear that if he deliberately made up his mind on this matter, it would be impossible to prevent him accomplishing his end.

Not only, then, do intensely suicidal ideas arise from pure misery and from dread of persecution, or in consequence of annoyances resulting from bodily and mental nervous disturbance, but danger also occurs in the stage of depression following excitement. In this way I have seen one woman destroy herself just as she was beginning to improve. She

had, as it were, opened her eyes to the fact that she was in an asylum, and it seemed such a terrible thing to contemplate that she strangled herself. Although it is generally somewhat easy to recognise suicidal tendencies in patients, he would be rash who would say that a person of unsound mind, whatever the variety, would not attempt self-destruction. Young emotional patients frequently threaten and appear determined on suicide, but they rarely carry their threats into execution. General paralytics very rarely, if ever, intentionally kill themselves; though their exaggerated ideas and their loss of common sensibility may lead them into accidents which may end fatally. The acutely maniacal patient injures himself under similar circumstances, and the weak-minded patient may, by accident, get into mischief; but suicide must ever be looked upon as one of the dangerous symptoms connected chiefly with melancholia.

3. Melancholia with delusions as to the unpardonable sin.—The so-called "religious insanity" has been referred to when considering the influence of religious teaching upon the production of insanity (p. 53); and also when tracing the origin of delusions and their explanation (p. 161). Although there can never be a clinical group of cases with religious ideas as the distinguishing characteristic, yet in asylums we constantly meet with cases aptly called "the unpardonable sinners." These patients, for the most part, have been brought up in narrow religious sects, and many of them have been agents in one way or another for the dissemination of religious knowledge. Among men with these ideas we constantly meet with the Sunday-school teacher, the Scripture reader, and city missionary, and among women those similarly engaged. We may meet with these cases in very young girls and boys, who by the

type of their symptoms prove the close connection existing between the erotic and religious. This class is not so well represented in full manhood and womanhood, unless some special causes of exhaustion have arisen. At the climacteric they are very common, and in Bethlem we were rarely without many women whose whole ideas of life were cramped by the belief that they were unpardonable sinners.

I am frequently asked what is the unpardonable sin, and what does the patient mean by this sin. In many cases it refers to some sexual abuse. In the younger patients the idea has often arisen from indulgence in masturbation during the time they were professing Christians. In others, at the climacteric, some sexual disorder again has tinged or started the delusion. In a few cases, before the mental depression there was a stage of excitement, connected with increased erotic tendencies, at which time the patient indulged in sexual excess or masturbation, and when the period of depression followed he came to consider this unnatural offence in a person of mature years to be the unpardonable sin. The most common idea and the scriptural one is that the unpardonable sin is blasphemy against the Holy Ghost (St. Matthew xii. 31); but here arises the difficulty as to what blasphemy against the Holy Ghost is. I have known a lad suffering from melancholia who believed that he committed that sin when he thrust his penknife into the ground and combined the name of the Holy Ghost with an ordinary curse.

Perhaps in no published work is the sad tale of the fall into this terrible state of a high-souled, pure-hearted man told more graphically or with more intensity than in George Borrow's strange but pleasant book, "Lavengro." Peter, the hero of the work, thus describes his temptation, his fall,

his emotions, his remorse, his despair, and finally his resurrection from the depths into which he had fallen :—

"One autumn afternoon, on a week-day, my father sat with one of his neighbours taking a cup of ale by the oak table in our stone kitchen. I sat near them and listened to their discourse. They were talking of religious matters. 'It is a hard matter to get to heaven,' said my father. 'Exceedingly so,' said the other. 'However, I don't despond; none need despair of getting to heaven save those who have committed the *sin against the Holy Ghost*.' 'Ah,' said my father, 'thank God I have never committed that! how awful must be the state of the person who has committed the *sin against the Holy Ghost!* I can scarcely think of it without my hair standing on end.'

"And then my father and his friend began talking of the nature of the *sin against the Holy Ghost*, and I heard them say what it was, as I sat with greedy ears listening to their discourse."

The evil seed had been sown. Truly, "ignorance is bliss" where it is not merely folly, but criminal, to be wise. Peter continues his pathetic tale. After describing his temptations, his broodings, and his surmises as to what must be the condition of the person who had committed the *sin against the Holy Ghost;* his strong inclinations to commit it himself, were it not that a strange kind of fear "prevented me"; his decisive declaration that from his experience "it is not a good thing for children to sleep alone"; his inattention at school; he thus finally describes his fall after fearful struggles :

"Arising from my bed, I went upon the wooden gallery, and having stood for a few minutes looking at the stars with which the heavens were thickly strewn, I laid myself down, and, supporting my face with my hands, I murmured out words of horror, words not to be repeated, and in this manner I committed the *sin against the Holy Ghost*."

Angels might have wept over the fall of poor Peter Williams, for he knew not what he did.

His description of his after-state of remorse and despair is a most strikingly graphic piece of descriptive writing. How it must come home to the soul-rending experience of hundreds of thousands of young people to-day, who have been moved by emotional teachers! He felt stupefied; he had a dim idea that something strange and monstrous had occurred; at school he could not learn; cheerfulness abandoned him; he became reserved and gloomy. "I seemed,"

he says, "in my own eyes a lone monstrous being;" *and he could not pray.* "What is the use of praying?" he said; "I have committed the *sin against the Holy Ghost.*"

He describes the death-bed scene of his father, and how his beloved parent's parting words, "trusting they would meet in heaven," filled him with horror. He progressed in years, and worked hard for his intellectual improvement, yet physically and mentally he was still deeply affected. He would sit brooding alone, and "count the months and the days which yet intervened between me and my doom," for he felt his days were being shortened. At last, after terrific struggles, he abandoned home and family, and, "a prey to horror and despair," ran wild through the hills of his native Wales. He fell into the hands of robbers and gipsies; he was burnt by the sun, and drenched by the rain, and "had frequently at night no other covering than the sky or the roof of some cave." At last his desperation culminated in the awful temptation to self-destruction, from which crime he was saved by what he considered to be a merciful interposition of Providence.

"I felt myself quite unable to bear the horrors of my situation; looking around, I found myself near the sea; instantly the idea came into my head that I would cast myself into it, and thus anticipate my final doom. I hesitated a moment, but a voice within me seemed to tell me I could do no better; the sea was near and I could not swim, so I determined to fling myself into the sea."

Then he gives the following account of his wonderful escape:

"As I was running along with great speed in the direction of a lofty rock which butted over the waters, I suddenly felt myself seized by the coat; I strove to tear myself away; looking around, I beheld a venerable, hale old man, who had hold of me. 'Let me go,' said I fiercely. 'I shall not let thee go,' said the old man. 'In whose name dost thou detain me?' said I, scarcely knowing what I said. 'In the name of my Master, who made thee and yonder sea, and has said to the sea, So far shalt thou come, and no farther; and to thee, Thou shalt do no murder!'"

The old man, knowing Peter's mother, from whom he had received much kindness, conducted him to his house, and although Peter did not unbosom himself, he confessed he was sorely afflicted in mind. The old man knelt down and prayed long and fervently, Peter kneeling likewise. When they had risen from their knees the old man left him for a short time, and on his return led him into another room, where there were two females; one was an elderly person, the old man's wife,

the other was a young woman, who was a distant relation to the old man. He remained several days in the old man's house, and after receiving repeated words of consolation and encouragement, departed for his home. Peter arrived safely, to find that his cousin had died and left him his heir, and that the goodly farm on which his cousin had lived was now his property, and in a few days he took possession of it. Here he felt his solitude, and frequently wished for a companion with whom he could exchange ideas, and who could take an interest in his pursuits. He remembered that the Scripture says that it is not good for man to be alone, and then it was that the image of the young person (Winifred) whom he had seen in the house of the old man frequently rose up distinctly before his mind's eye. He resolved to make suit, was successful, and soon won her heart. He married her. His affairs prospered, so that he was almost happy, taking pleasure in everything around him, in his wife, his farm, his books and composition, and the Welsh language, till one night, as he was reading the Bible, and feeling particularly comfortable, a thought having just come into his head that he would print some of his compositions, he came to the fatal passage, "All manner of sin and blasphemy shall be forgiven unto men: but the blasphemy against the Holy Ghost shall not be forgiven unto men." Peter rushed out, his wife imploring him to tell her what was the matter. He could only answer with groans, and for three days and three nights he did little else than groan. He became at last calm. His wife persisted in asking him the cause of his late paroxysms. It is hard to keep a secret from a wife, so Peter told her the sad tale as they sat one night over the dying brands of their hearth. He thought she would have shrunk from him with horror, but she did not. She raised her eyes, and looking up in his face said, "Let us go to rest; your fears are groundless."

Peter was cured, and became one of the most celebrated, devoted, zealous and successful of Welsh missionaries.

It will be seen in this case that a man, who appeared otherwise sane, had become fully impressed, by means of his early religious education and surroundings, with the idea that there was an unpardonable sin against the Holy Ghost, and that in boyhood he had committed it. Whatever the delusion the same egotism exists; the patient invariably says he is the only person who ever acted

thus, and that there can be no possible hope for him. The feeling seems to arise in at least two different ways: in one a very stormy voice of conscience appears for ever to be trumpeting in the ears of the unfortunate patient that he is lost; and in the other case (and this is the more common among younger patients) there is a feeling of deadness, a feeling that nothing arouses them to a sense of their sin. They will write long letters, saying they feel they must be cast away, because they know they have committed grave crimes, but yet they do not feel any real sorrow for their act, and this proves they are the unpardonable sinners; they have neglected their opportunities, and the time for turning has passed. Such cases are looked upon generally as very unfavourable; but, in my experience, a fair proportion get well, although it may take years before they recover, the prognosis depending to a great extent on the age and general health. The majority of young cases, if there be no chest diseases, recover. A large proportion of the middle-aged cases, especially those following lactation, also recover. Many suffering from melancholia occurring at the climacteric recover, but require some time for the re-establishment of perfect health. In senile cases the prognosis is still worse. Many cases after middle age slowly sink and die, while others will remain wretched and unoccupied, and end in weak-mindedness. Again, others will improve in physical health, while their mental actions grow restricted, and they become automatic "miserable sinners," such as are represented by one patient in Bethlem, who said nothing but "dead and damned."

The only treatment available in such cases must be of a general character, and must be regulated according to the age and physical state of the patient. In the younger cases, iron,

quinine, and mineral acids, with saline purgatives, such as mineral waters, taken the first thing in the morning, are sometimes useful. In the climacteric cases, tonics, stimulants, morphia, and purgatives are of service. I rarely give bromide of potassium or chloral hydrate. In a few cases where exhaustion was extreme ten grains of chloral hydrate, with half-an-ounce of brandy every two hours, proved of service. In senile cases, rest in bed with good food and small repeated doses of morphia is beneficial. Some physicians consider that the treatment of severe cases of melancholia, such as are seen among the "unpardonable sinners," is best carried out if the patient be kept in bed.

4. Climacteric melancholia.—At the climacteric period considerable mental disturbance arises; it is generally melancholic or delusional in type, both in men and women. I must confess that the evidence in favour of a distinct climacteric period in men is not quite convincing (*see* pp. 29 and 78).

5. Senile melancholia.—With old age come many troubles, and the so-called "weight of years" may be but another name for sadness of heart. "The almond-tree shall flourish, and the grasshopper shall be a burden, and desire shall fail: because man goeth to his long home, and the mourners go about the streets: or ever the silver cord be loosed, or the golden bowl be broken, or the pitcher be broken at the fountain, or the wheel broken at the cistern." The machine is wearing out, and with the wear there is conscious painful sensation connected with almost every act. All sprightliness and spontaneity of life have passed. Even the conservative period of order and method is now over, and the few things that can be done are limited in every direction by pain or feebleness. Although wear-out will have to be considered

in connection with dementia, there is also a condition of painful action and sensation such as may be described by the term senile melancholia. It appears sometimes rather suddenly, as the result of some family distress or domestic loss. Thus a

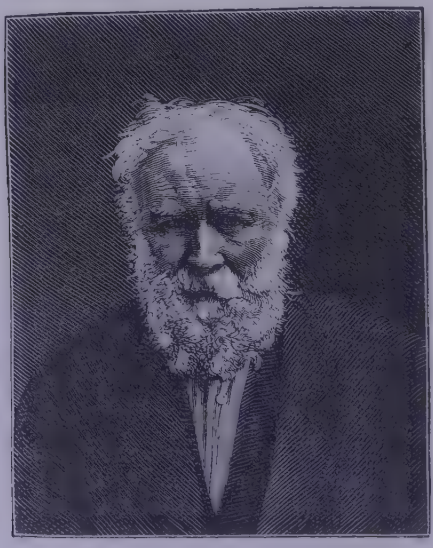

Fig. 9.—Case of senile melancholia.

man of eighty-four years of age, who had shown no signs of insanity, lost his wife within a few months of their keeping their golden wedding, after which the poor old man, brooding over his loss, and feeling his solitude, developed the idea that he had killed his wife, and must now destroy himself. Rest and change of surroundings, with suitable companions, restored his peace of mind, and he spent the rest of his life in mental health.

In another case a merchant sustained a very serious loss in a speculation, and brooding alone over his misfortune, developed melancholia, and contemplated suicide. Change of scene for a time relieved him; but a return to his office was associated with a re-development of the melancholic symptoms, which finally carried him off. In senile cases the age must be considered relatively to the character of the individual physique; for we meet with men who are worn out at forty, and, on the other hand, there are active men possessing the energies of middle age at seventy. I should say the reality of age depends as much, or more, on the arteries as on the years. I have been often struck with the arterial changes which are visible in one form or another of mental disease. The rigid artery may be associated with other diseased vascular conditions; among other things, with bad nutrition of the brain. Or we may meet with grosser cerebral changes in connection with apoplexy, and which we shall consider later under a special heading. I must, however, here say that I have seen several cases in which there was marked mental depression preceding attacks of apoplexy in patients with diseased arteries. I saw a doctor who suffered from constant subjective annoyance through his ears, his nose, and his skin for months before his fatal attack of apoplexy. In some other cases of senile melancholia, mental or bodily hypochondriasis, with great emotional disturbance, is met with; and it is not unknown for patients of advanced years to destroy themselves, being convinced they have outlived their time.

The *prognosis* of senile melancholia must depend upon the inheritance, and the general physical condition of the patient. If the arterial tension be high, and if there be albumen in the urine, the prognosis must necessarily be bad. If the patient

has already had other attacks of insanity or apoplectic seizures, the prospect is likewise dark. If, however, the general health be good, the appetite maintained, and the patient easily induced to try change in surroundings and companionship, he may, with general care as to hygienic treatment, get well, even though he has passed fourscore years.

Retarded recovery in melancholia.—In one case symptoms of melancholia occurred in a woman 35 years old, without children, whose mother was in an asylum, and whose husband, then nervous, afterwards died of general paralysis. This woman was admitted believing herself to be utterly wicked, and that she had acted inhumanly in allowing her insane mother to be sent to an asylum. She was always contemplating suicide. There was a combination by this patient and another to secure sufficient rope to hang them both; but fortunately, when one managed to get a piece of rope with which to effect her purpose, the other, the patient now under consideration, not only declined to hang herself, but gave information which prevented her fellow-conspirator from carrying out her purpose. Year after year passed without any amelioration of the symptoms of this patient. She was always insisting that she must go out and be hanged; only varying this with the statement that, as society would not recognise her right to be hanged, she must go out and murder a man, and then it would be all right. After several changes in her relationship to the other patients and attendants, she was moved into an entirely new gallery, where the change had a wonderfully beneficial effect. I was able to send her on leave of absence, and she ultimately recovered, and has remained well and grateful for some years.

A still more remarkable case was that of a

man who was admitted to Bethlem on the 27th September, 1844, and who remained there for thirty-four years. For fifteen years he sat with his head bent upon his chest, apparently regardless of everything about him, yet one felt sure, from incidental circumstances, that he really did perceive what was transpiring, and that, therefore, his condition was one of melancholy and not one of weak-mindedness. One evening, when sitting in the billiard-room without seeming to take any interest, he began to look about him; a few days after he was cheerful, in fact almost exuberant, and on the 14th of May, 1879, was discharged recovered, and never sought readmission.

I shall consider later (Chapter XX.) the mental symptoms associated with suppressed gout and visceral diseases. Melancholia may occur with renal disease and with heart disease. Melancholic symptoms are not uncommon with displacements of the uterus and with uterine fibroids. Losses of the special senses may lead to nervous irritability, suspicion, and depression; in several cases, facial deformities, and the shyness connected therewith, have been traceable as causes of melancholy, frequently with suicidal and homicidal tendencies.

As far as the *diagnosis* is concerned, there are few points to which I need specially refer. I have said that melancholia is mental pain, out of relationship to the surroundings; but from time to time cases are seen in which men of good position and of undoubted reputation say they are too wicked to live, that they are hypocrites and the like, and in some such cases the penitent defaulting trustee, not the melancholic patient, is to be seen.

"Maniacal-depressive" insanity.—Mention may be here made of the fact that some authors, especially Continental, regard mania and melancholia and the periodically recurrent circular

and alternating forms of these disorders, as merely manifestations of a single morbid entity, which is by them designated *maniacal-depressive* insanity. That an attack of mania is frequently followed, or preceded, at intervals varying greatly in duration, by one of melancholia, and that these disorders occur periodically, a type being preserved in the attacks, is well known, and arguments can undoubtedly be adduced in favour of the above-mentioned conception. In practice, however, we have to deal with cases exhibiting an attack of, to all intents and purposes, simple mania or melancholia, and in the present state of knowledge there would not appear to be sufficient justification for abandoning the older method of classification and for regarding mania and melancholia as mere phases of one disease.

Treatment of melancholia and stupor.—The treatment of simple melancholia in young people whose case does not need asylum care was outlined on p. 170; and similarly the general measures to be adopted in adult and senile cases were referred to on p. 201. The remarks made as to the "rest-treatment" under acute mania apply in melancholia and stupor also, as was hinted on p. 125. Instead of seclusion in rooms many prefer rest out of doors, in fresh air and sunlight, if feasible; in default of this, limited exercise in the open with rest in bed indoors for the remainder of the day. The patient must be kept properly clad and dry. Many cases will only obtain sufficient food by forcible feeding by nasal or œsophageal tube. In acute conditions milk, eggs, and farinaceous food are usually given. Constipation is common; free purgation is beneficial. Injection of physiological salt solution, subcutaneously (sterilised) or by the bowel, on alternate days, in large amount (300 c.cm. to 1 litre and more), has been found

beneficial. Electric baths are useful in cases physically reduced and of the passive kind. In convalescing cases massage, shower baths, and physical drill are good measures. Cod-liver oil and maltine and the usual tonics (as instanced on p. 201) are frequently indicated. The risk of suicide must always be remembered. Sedatives at night will at times be necessary; opium in its various forms and paraldehyde are amongst the best here. In the agitated states opium or a mixture of cannabis indica and bromide of potassium is serviceable. The patient should be regularly weighed in order to check the results of care and treatment in this and other forms of mental disorder.

As to **pathological insanity,** no specific changes have been found. Alterations in nerve-cells have rarely been described, but are in no way peculiar to melancholia.

CHAPTER X.

PRIMARY DEMENTIA.

General or partial—Complete general dementia—Partial primary dementia—Causation — Treatment — Dementia præcox.

In considering **dementia,** I shall make two divisions into **primary** and **secondary.**

In the latter there is destruction more or less complete of the mind, which can never be recovered from, and in the former there is generally mere functional arrest, which may pass off.

Senile dementia would logically come under primary dementia, but is a condition sufficiently distinct to be treated separately, as is done in this manual.

Both primary and secondary dementia appear the same to the ordinary observer, just as is the case with conditions of paralysis, which may be real or apparent—the latter as seen in hysteria.

Comparatively few cases can be looked upon as purely direct and primary, but some are seen, especially such as are due to physical disorders, as fevers, poisoning, or direct injury. Many more are secondary to other states of bodily or mental disorder.

In the present chapter I shall describe **primary dementia** in its several forms, and also refer to its various causes.

As mental life begins with but little evidence of intellect, and with imperfectly organised sense impressions and motor impulses, so it may end with a return to its simplicity in age. At the one end of

life there may be inability to develop intellectually; this is called *amentia;* and at the other end destruction of mind may leave the whole intellectual fabric a ruin; this is called *dementia.*

No two houses fall into ruins in exactly the same way, though in the end the four walls alone may remain as evidence of the once inhabited dwelling; and so with mental destruction, it will be found that though in the end similar foundations and simple boundaries of mind may remain, all the finer parts are removed; whether age, war, or fire has destroyed the houses, the results are alike; similarly, either age, disease, or injury may wreck the mind. It will be seen that the mind may show the effects of destruction in various ways, and the destruction may progress at very different rates.

There is no such thing as complete dementia, for life could not exist with total suppression of mind and sense reaction; but there are varieties of dementia in which most of the parts of the mind exhibit signs of weakness, and this I shall call *general dementia,* in contrast with the *partial* dementia, which will be shown to affect special parts or factors of mind.

Cases of dementia should be to the mental philosopher like analysis to the chemist, or like weathering of rocks to the geologist. Dementia, by separating and isolating certain faculties, and by interfering with the action of mind, enables one to get a clearer view of mind than is to be gleaned from the study of the normal mind in healthy action.

I shall begin, as I did in considering mania and melancholia, with a description of dementia as a whole. Not that it is at all common in diseased any more than in normal states to find perfectly typical examples.

In a case of **complete general dementia,**

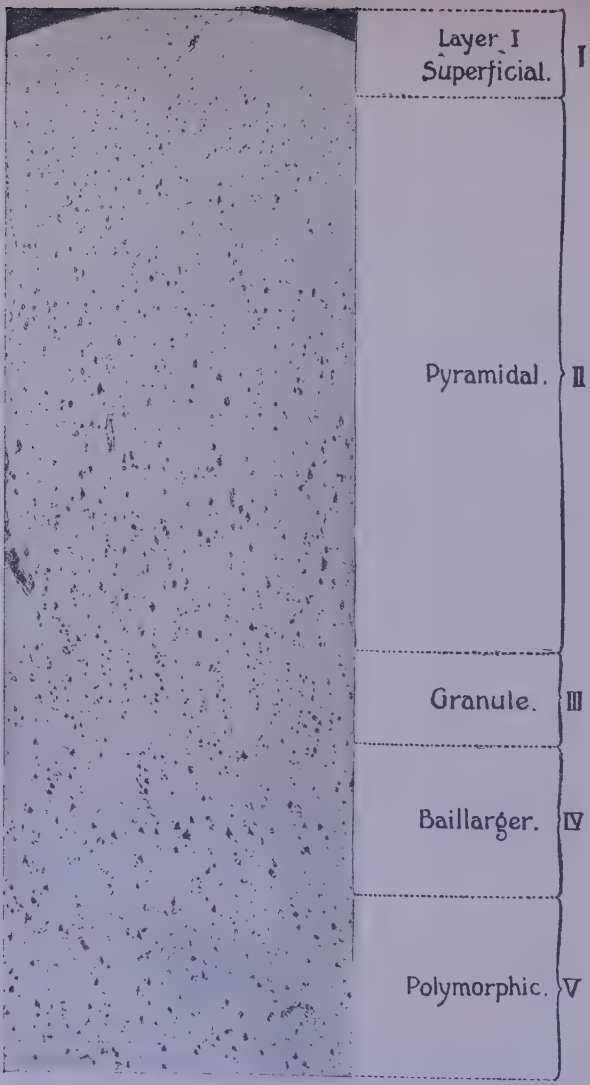

Fig. 10.—Normal adult cortex, prefrontal area. × 84. (*Dr. J. S. Bolton's preparation.*)

there would be a general weakness of the senses, the memory and the higher organising and con-

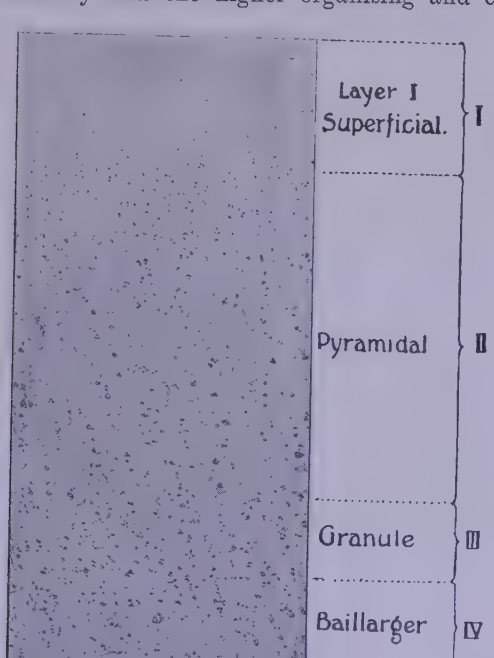

Fig. 11.—Cortex from a case of marked dementia, prefrontal area, for comparison of cell-layers with those of normal adult cortex (Fig. 10). Cells sparse, cell-layers ill-defined, cortex shallow. × 84. (*Dr. J. S. Bolton's preparation.*)

trolling powers. The senses would react slowly to their respective stimuli, reflex actions would be

performed, and in some cases (in my experience) the loss of the higher control would cause reflex action to be more rapid and more active than in health.

Many acts of the more common kind would be done automatically. The power of storing impressions would be greatly impaired, or even annihilated, so that the memory for recent impressions would be wanting, and memory of the past would be somewhat affected. There would be no evidence of volition, and emotional display would be rare.

The loss of self-control and of general control would be marked, but the evidences of loss of self-control would not as a rule be seen in display of energy along unwonted lines, but would be marked by suppression of the energy.

That different amounts of loss of power produce these different results, I have often seen in progressive degeneration.

Thus a woman who had been badly marked by small-pox, when sane, got over the consciousness of her disfigurement. With dementia came a constant desire to hide her face, but as the dementia became more profound she again disregarded her appearance.

So much, then, for the effects of loss of control.

There might be tears, or a ripple of a smile might pass across the features, but these displays of emotion would have no relation to the surrounding circumstances. In such a condition there could be no power of abstraction, no ability to judge by comparing one thing with another, nor could there be any origination of ideas. There generally would be a more or less plastic muscular condition directly opposed to the rigid cataleptic state which we have observed in melancholia. There would be good digestion and good appetite, often with dirty habits, the patients neglecting themselves, both as

regards urine and fæces. In such cases there would be absence of sexual desire; sleep good, so that they would sleep as soon as put to bed, and would remain till morning in the position in which they were left. Such is a description of complete or general dementia, a very good example of which is to be seen in the case which follows.

Acute primary general dementia.—Patient was single, twenty-two, and a farmer. Two sisters insane. Admitted to Bethlem March, 1873. On November 5th, on his return from a public-house, he had been frightened by some fireworks which were thrown at him as he went along a dark lane. He got home, but remembered nothing about the journey, nor his actions. He was not drunk.

The next morning he did not get up, and when his brother tried to get him to go to his usual work he took no notice. When taken out of bed he stayed where he was placed. His brother thought it all resulted from drink, and fancied he would sleep it off. For the next few days he was dull; then for a short time and at intervals he was violent, and seemed to see objects of dread.

On admission he was described as a fat lubberly fellow, who neither moved nor spoke; and who had to be fed, washed, and tended like an infant.

He ate and slept well, and was in no way violent. The general idea was that this patient had been weak-minded from birth. He occasionally whistled to himself, but did nothing to pass the time. He scratched his face into sores. The continuous electric current was applied to his head daily. He roused after some weeks, and said his first returning recollection was of the galvanism. His mind was a total blank from November till June 1. He became not only active, but pleasant and cheerful, and rather over-demonstrative for a time. He went back to his work; for some years

I heard that he was keeping well. I have little doubt that if he had broken down again we should have had an application for his readmission.

Partial primary dementia, occurring as an acute disorder, is supposed to be uncommon. I am, however, inclined to think there is a special group of cases which should be looked upon as belonging to this class. Young adults, who have given way to excesses, especially when several varieties of excess have been indulged in at the same time, become unable to perform the duties for which they have been educated and fully prepared. A young man of twenty who had had a liberal education, with a special training in art, and who was put to an artistic calling, overworked himself and indulged in masturbation; he became unable to do the finer parts of his work. He began by being inattentive; next he spoilt the materials; and later, his work showed no signs of any of his former artistic knowledge or ability. He, in fact, was distinctly losing the highest and latest of his acquirements. Rest for a short time enabled him to return to his work; he had not sufficiently regained strength, and rapidly relapsed into his condition of partial weak-mindedness, and unless prolonged rest with exercise, good food, together with somewhat stimulating companionship and surroundings, were provided, the prospect of the case was unfavourable.

One of the most common varieties of partial weak-mindedness is seen in the *loss of confidence*, so that persons who have hitherto been fully able to perform the duties of their profession, become doubtful, uncertain, and incapable. I remember one case especially in which this was remarkably well seen. A lawyer, thirty-two years of age, whose mother had been insane, and in whose family phthisis was also present, became uncertain

and doubtful about his ability to fulfil his duty. He had had a slight attack of insanity eleven years before, from which he completely recovered. He had had also one attack of rheumatic fever. The supposed cause of his insanity was loss of his situation, but the truth really was that he gave up his situation because he felt doubtful about being able to continue his duties. There was a feeling of unworthiness at one time in his case which caused me to look upon it as one of melancholia; and undoubtedly the symptoms were of a mixed kind. But the most characteristic symptoms were shown by his utter inability to decide upon any course of action. If, for instance, he was asked to lunch, he would take twenty minutes to decide whether he, as a patient, had a right to accept an invitation; and if at last he went, half compelled and half persuaded to leave his ward, he would further hesitate before taking a seat, lest that seat might be required by someone else; and then the meal would be prolonged to a most inordinate length in consequence of his inability to decide upon what he should and what he should not do.

After two years of treatment he left to be under private care for a time, but again drifted into an asylum, whence he was once more discharged, and since then I have met him in one place or another still vaguely passing from one thing to another, but utterly unable to decide on any definite course of action. In this condition I believe he will pass the rest of his life; for ever weighing motives and endeavouring to decide upon what he should do, but quite incapable of acting freely and at once. We see in this last case that partial dementia may present itself as *loss of will.*

Partial and progressive dementia are found associated with the *loss of common sensibility;* and I shall point out that in many cases of *myxœdema*

there is a progressive deterioration of intellectual power associated with slow conduction of impression, loss of common sensibility, and general loss of temperature; but I am not prepared to admit with Dr. Ord that this mental deterioration results alone from the loss of peripheral stimulus. I am, however, inclined rather to consider it as part of a diseased process, in which not only the central but also the peripheral nervous centres are affected. Besides weak-mindedness connected with loss of common sensibility, there arises mental degradation connected with loss of the special senses; just as idiocy may arise from the want of hearing, so loss of hearing, especially if combined with any other sense-loss, will tend to produce intellectual weakening along certain lines.

Memory is often taken as the test of mental strength or weakness; but it has to be looked upon in very different ways. It is possible for an imbecile to have a wonderful power of memory. In fact, the most marvellous memories are often the most useless, and are seen among the chronic imbeciles. Memory begins to fail naturally in certain particulars at about middle age; and memory of names, of persons and places, and the like, fails in most busy men soon after forty years of age. This is physiological, and may be considered as due to two causes. In the first place the middle-aged man has found the futility of collecting matter not likely to be required later. He has not the same special interest in, and does not pay the same attention to new names and faces that he did when a younger man; and, next, there is doubtless a limit to the storing capacity of the human brain for disjointed, disconnected facts. Many old men are characterised by a further degradation of memory, while repetition and wearisome recalling of long past details are supposed to be characteristics of

senility. This may pass beyond simple functional loss, and become so marked that the patient may require to be looked after and controlled. I know some physicians would strongly oppose the sending to an asylum of patients suffering chiefly, if not solely, from loss of memory, especially if this occur in old people; but examples have occasionally been seen in Bethlem in which it appears that the kindest and best treatment for senile weak-mindedness is seclusion in an asylum. Thus, an old man, seventy-eight years of age, when his memory and other faculties were becoming weaker, married a young wife, and indulged in sympathetic weakness which brought him pecuniarily to ruin. The next stage in his mental degradation was an increase of irritability and a tendency to self-neglect, so that he became poor, dirty, irritable, and impressionable, and was always in trouble. Seclusion for a time in Bethlem restored him to physical comfort; and although seclusion cannot reduce the weight of increasing years, it nevertheless allowed him to live in comfort without further injuring his prospects, or causing annoyance or trouble to his friends or neighbours.

Loss of memory may follow other conditions besides age, and may be the chief symptom of mental disorder; and I feel it difficult to decide whether it is more correct to place these cases among those of primary or of secondary degeneration. In the following case, a woman forty years old, with some insanity on the father's side, who had been exhausted by the constant watching and nursing of a paralysed husband, developed quite suddenly loss of memory of recent events; this followed a fit, apparently hysterical, which occured three weeks before her admission to the hospital. Nothing could be more complete than her loss of memory, so that although told at one

moment a person's name, condition, and relationship to her, she had the next moment forgotten entirely both name and relationship. It was most interesting to observe how purely the loss of memory was a loss of power to store recent impressions. She was tested in every way as to her memory of the past. She could give the German for any article which was shown to her, she having lived some years before in Germany. She could strike a note on a piano when told to do so, and she could also recognise the name of a note when struck. She had unimpaired power of comparing past impressions, so that she could argue in a way; and her ideas as to the time of the year and time of day were evidently formed, not from memory, but from reason. Thus, if I asked her at five o'clock in the afternoon of a day in November, what was the month of the year, she would at once look at the clock, look out of doors, then at the fire-place, and finding it was dark, the leaves withered, with still a few hanging on the branches, and a fire burning on the hearth, she decided it must be somewhere about October. If asked the same question five minutes afterwards she would go through the same argument with a similar result. I tried the effect of deep impressions, but they were as little persistent as the fainter ones, and I could not find that it was of any importance whether memory was appealed to through one sense or through another. A visual impression was forgotten as soon as an auditory one.

A striking illustration of this patient's state was afforded when she was told by her friends that her husband had died. She burst into a storm of tears, but immediately stopped and asked what she was crying about. After some time she had another attack of loss of consciousness, associated with some loss of power with change

in the common sensibility of the left side. She recovered from this, and appeared in no way better or worse, and for years she was in Bethlem enjoying good health; but, if I may use the expression, with complete loss of memory for all present impressions, whether they appealed to her through the special senses, common sensibility, or even through the organic side. This last is evidenced by the fact that she had no feeling of satiety, and would continue to eat as long as any food was in her way. It has been suggested that this is a case of general paralysis; but I can only say at present that it is impossible for me to satisfy myself that that is so. It was suggested by at least one eminent physician that the detention of such a person in an asylum was unjustifiable; but my own feeling distinctly is, that a person who has no recollection and has desires and appetites, is a person pretty sure, especially if a woman, to get seriously compromised, and, if she have money, to be injuriously influenced, if allowed to be at large.

Primary dementia may be due either to physical or to psychical causes. —(*a*) *Physical causes.*—I often meet with cases following *fevers* in which the most marked evidence of weakness of intellect is loss of memory, and it may be said generally that loss of memory has to be considered as the most important symptom. After typhoid fever I have frequently seen patients whose memory, for a longer or shorter period, was seriously damaged, and now and then such cases do not recover, but steadily pass from one stage to another till they become absolutely and permanently weak-minded. The same result may follow rheumatic fever, and I am inclined to believe that such weak-mindedness following the latter disease occurs more commonly in case where there has been excessively high temperature; but of this I am not in a position to

speak authoritatively, because the cases are only seen by me after the acute bodily symptoms have passed off.

Exhaustion with anxiety may cause this condition, as shown in the case described on p. 214.

Another condition very frequently giving rise to weak-mindedness is *alcoholic poisoning*. The general effect of alcohol will be pointed out to be gradual deterioration of mind, beginning with loss of self-control, passing on to loss of moral sense, so that every desire is gratified without regard to truth, honour, or any higher social feeling. After this it is common to meet with dulness of perception and loss of memory, the patient becoming more or less indolent, self-satisfied, and dull to external stimuli: the conduction of impression is retarded, and the impressions themselves are imperfectly received and slowly organised. When mental weakness, due to alcoholic poisoning, has got as far as this, the prospect of cure is very small. Similar weakness may be produced by abuse of opium and other drugs.

The next cause of weak-mindedness I have to consider is *syphilis*. I do not suppose there is anything absolutely specific in the condition I am about to describe, but having met with it more frequently in cases suffering from syphilis than in any others, I deem it at least noteworthy. A patient having had constitutional syphilis some years before, becomes apathetic, indolent, and at times emotional and entirely unable to perform his business or his social duties. Such a one shows no special delusions, and for a time is kept at home. If the friends be sufficiently well off they may be able to treat him there, but if he be the bread-winner, and his retention at home prevents others from earning the means of sustenance, it will be absolutely necessary to put him away. A

patient in this condition has generally marked loss of expression, a look of apathy, not of misery, which may be increased if he have any paralysis of a cranial nerve. He will answer slowly but reasonably, and very probably will say there is nothing the matter with him. On inquiry, however, it will be found that he is wet and dirty, although there is no evidence of paraplegia. Such cases may remain in this condition for years, and in some treatment utterly fails to do any good whatever. Iodide of potassium or mercury may be exhibited in extreme doses without results. In some cases undoubtedly benefit results, and that quickly. I have seen such a patient completely cured and remain well for years after; but then the disease was almost certainly connected with a gumma. What the change is in the above cases I do not know. It may be that there is some change in the arterial walls (and the association of dementia with *arterio-sclerosis* is pointed out by some writers), some thickening of the membranes, or even interstitial change in the brain itself. The importance of recognising the syphilitic origin of these cases is great, since many similar ones have been mistaken and set down as simple ordinary dementia of general paralysis of the insane.

A blow on the head will produce weak-mindedness, and I suppose some of the old cases of sudden suspension of all but organic life, resulting from depressed fractures of skull, may be looked on as cases of acute traumatic dementia. *Masturbation* or *sexual excess* may produce dementia.

(*b*) *Psychical causes.* Mental shock or fright may cause primary dementia, as illustrated by the case given on p. 213.

So much, then, for primary dementia. I feel it difficult to deal quite satisfactorily with this subject, because weak-mindedness has to be con-

sidered from so many points of view. The mere reduction of mental power, the decreasing scope of the mind's activities and sympathies, the impaired transmission and velocity of thought, and the diminished reaction of the nervous centres, must all be looked upon as evidences of mental weakness. Disease itself is the evidence of weakness, and the body and mind are only strong when well. It would, therefore, have been quite allowable for me to have considered every variety of mental disorder as evidence of mental weakness; but instead of this I have in this chapter brought together the chief conditions which led to marked and direct loss of power in one or more of the most prominent faculties, whether arising from the bodily or the mental side.

The diagnosis between primary dementia and the various degrees of melancholia with stupor is (*see* p. 181) not always clear. In the partial form of dementia the mental functions are less affected, and in the general form there is absence of melancholia, and the physical symptoms of stupor, as described on p. 183, are absent or slighter. The chief sources of error lie in the diagnosis between permanent and temporary weak-mindedness. The cause of the illness and the age of the patient must decide; if young there is a fair hope of recovery, if the state be not due to prolonged exhaustion from masturbation. If alcohol is the cause, the prospect is fair, if there have not been several previous attacks. If following fevers, pneumonia, or child-birth, or mental shock, the prognosis is also fair. If associated with degeneration of arteries, the chances of recovery are small.

Treatment.—In cases of what appears to be functional arrest change of surroundings and cheerful stimulating companionship are advisable, with liberal diet and exercise. As soon as I can trust

a patient who is suffering from partial dementia, or from dementia due to some physical cause, I send him home on trial, or, at least, get the friends to visit and encourage him.

In cases of young men suffering from the effects of masturbation, every means must be used to give occupation to the mind, and to strengthen the body. In these and other cases hydro-therapeutics (baths, douches), gymnastic or physical exercises are good. Sedative drugs, such as bromide of potassium, are not good. Iron, arsenic, and occasional purges are more likely to be of service.

In cases due to progressive organic changes, the chief care is to prevent the patients from injuring themselves in body or estate. Such cases are often best looked after in private houses.

Dementia præcox.—It is widely taught on the Continent, but not commonly in this country, that certain cases of mental disorder occurring in youth (between the ages of 25 and 30 approximately) and exhibiting ostensibly diverse aspects —such as a state of hallucinations or delusions; confusion, or mere stupidity, with periodic excitement; melancholy; stupor; or combinations of such states—constitute, notwithstanding the apparent diversity of the symptoms, a definite group with characteristics sufficiently constant and pronounced to justify recognition as a morbid entity. And it is taught that the termination of this malady in dementia, more or less marked, may very early in its course be prognosticated. This disease is called *dementia præcox* or *adolescent dementia.* Cases are classified under this common designation, according to certain features supposed to distinguish them in the earlier stages of the malady, into simple dementia, hebephrenia, catatonia and paranoidal dementia. These sub-groups are not sharply defined and transition forms occur.

The common characteristics of all the sub-groups are, briefly, as follows. Perception is but little diminished, but is disordered, so that hallucinations are common. Memory and comprehension are less affected than certain other faculties. The association of ideas is much disturbed, so that there is impairment of judgment, with senseless rhyming and incoherence. The utterance is stereotyped, words and phrases are repeated over and over again (verbigeration). Feeling is blunted; there is apathy. Will is much weakened; there is aimlessness, loss of initiative, inability to act spontaneously. On the other hand, the patient re-acts to command; there is imitation of sound and movement (echolalia, echopraxia). Limbs retain positions given to them (catalepsy), but in some cases there is resistance with rigidity. Psychomotor disturbance shows itself in passivity and stupor, with mutism; or conversely, in excitement with impulsive, senseless, stereotyped, and monotonous actions. There are curious mannerisms in speech, bearing, and action. The behaviour is absurd and affected. The mode of expression of ideas and the comportment are incongruous with the content of the ideas. The face, apart from strange grimacing and grinning, is more or less expressionless. The limbs are apt to be cold and blue, and there are various disturbances of the bodily functions which do not differ from those observed in other acute mental disorders.

Turning to the sub-groups individually, the following may be given as their chief features. In *simple dementia* the mental weakness, the commencement of which is scarcely recognisable, progresses gradually and constitutes the malady, pronounced or acute mental symptoms being absent. *Hebephrenia* is an allied state, the course, however, being less even, with more frequent hallu-

cinations and delusions, and interrupted by periods of excitement. The *catatonic form* is characterised

Fig. 12.—Dementia præcox, catatonic type.

by psychomotor disturbances. The limbs show more or less rigidity and stiffness, with resistance; attempts to open the eyes or mouth elicit the same phenomena. There may, however, be catalepsy.

Stupor, with its accompanying physical manifestations of coldness and lividity of the extremities, is

Fig. 13.—Dementia præcox: the stuporose state.

common, likewise refusal of food, with retention of urine and fæces. On the other hand, it is claimed that excitement with noise and violence may be as frequent as stupor with mutism. Strange

attitudes, aimless, impulsive movements, and mannerisms are said to be especially common in catatonia. Lastly, in the *paranoidal form* the development of delusions is the characteristic feature. This state is distinguished from the systematised delusional insanity hereafter described as *paranoia* in that in the latter the fabric of delusions is more stable and complicated and the affective and volitional spheres do not exhibit the disturbances seen in dementia præcox.

Dementia præcox terminates, it is estimated, in well-marked dementia in three-fourths of the cases, and in the remaining fourth recovery is never complete and relapse is to be feared. In this minority of cases discharge to home care is feasible.

The *diagnosis* of dementia præcox from mania, melancholia, stupor, confusional insanity, from mental states due to exhaustion, from imbecility and hysterical conditions, is regarded as clear by those who have definitely accepted it as a disease. It has long been recognised — and the fact was alluded to in discussing the relationship between insanity and puberty—that mental disorders are very liable to occur at puberty and adolescence, and that a frequent determination of these is dementia. But it is not yet definitely proved that all such cases end inevitably in dementia, and that such a termination may, in a very early stage of the disease, be prognosticated by certain specific symptoms. The clinical evidence for the recognition of dementia præcox as a definite disease is insufficient. By some it is held that the clinical phenomena which have been collated under this heading do not form a natural group, but are merely indications of psychopathic states which begin with, and have, as their essential feature, hallucinations ("sensory insanity").

Whilst, therefore, it is desirable that the student should be aware that many alienists, especially Continental, definitely include in their nosology a disorder with the features sketched above, it does not appear necessary in this work to remove and group together under a special designation cases which exhibit such features, and which now appear under other headings, such as melancholia, dementia, stupor.

CHAPTER XI.

SECONDARY DEMENTIA—CHRONIC INSANITY.

Chronic mania—Weak-mindedness with easily roused fury —Weak-mindedness with temporary sanity before a fresh attack of mania—Weak-mindedness, with a second attack of melancholia due to age—Chronic active melancholia—Chronic passive melancholia—Recurrent melancholia with tendency to weak-mindedness—Recurrent melancholia with distinct alteration in character—Recurrent mania with but little intellectual loss—Profound secondary dementia of fifty years' duration—Weak-mindedness with hypochondriasis — Prognosis — Senile dementia.

Almost all acute attacks of mental disease leave the patient mentally enfeebled for a time, though the secondary dementia in many such cases passes away. Such intellectual weakness is, in my experience, most common when the mental disorder has been specially connected with some bodily illness. If the patient has become insane after *pneumonia* or a *fever*, or if she is insane in consequence of *childbirth*, the chances are that she will have to pass through a stage of mental weakness, exhibited by apathy, indolence, tendency to the neglect of person and proprieties; there is often a large appetite, with a disposition to sleep and grow fat. Such condition requires every means of external stimulation, and in women the ovarian functions must be looked to, as they are almost always irregular or in abeyance. Such patients should not be kept longer in an asylum than is necessary. I have frequently found it my duty to force such weak-minded people back into their

homes, where they slowly re-establish their family relationships, and then completely recover.

On the other hand there are in all asylums, and especially in the large county asylums, many patients who are incurable, and yet who are fairly useful in doing the simpler and more mechanical work of an asylum; without them the larger asylums would prove much more costly, as they are the hewers of wood and drawers of water, whose services, if wanting, would have to be replaced by paid labour. Notwithstanding their ability to perform these duties, they are hopelessly insane and unfit to be at large. Whether they have as much liberty as is possible is another question, not to be settled here. Many such patients gradually develop a special aspect, and are recognisable wherever they are met; but this is not true of all persons suffering from chronic insanity. There are several degrees in which this chronic mental affection shows itself.

Thus, after an attack of insanity which may have been maniacal or melancholic, the mental balance may never be set right; there is some peculiarity left, some loss of capacity or some loss of control, which more or less influences the life's history to the end. In its slightest degree this is called eccentricity or perverseness, and many patients are discharged from asylums as recovered who are really affected to some slight extent but not enough to justify detention, though the disorder is too great to permit of a return to former occupations. I have known active men of business who, after an attack of insanity, have appeared well and rational, but all power of application to work had gone. In others, evidence of loss of control was seen in intemperance or moral instability.

Doubtless a whole series of such cases could be arranged, exhibiting every degree of loss of mental

power. One interesting fact is, that from the result you cannot judge of the nature of the mental storm which has raged. A man may be eccentric or intemperate as a result either of mania or of melancholia.

Attacks of insanity, especially if they are repeated, tend to alter the whole mental life.

The alteration may be slight, affecting the finer social adjustments, or may be grave, destroying all social qualities. The alterations may leave a nervous instability, which is shown in greater readiness to break down under slight causes of disturbance, and I shall give examples of this as seen in weak-minded persons subject either to recurrent attacks of violence, or liable at irregular intervals to passionate uncontrolled outbreaks.

Such patients, though in the intervals apparently sane, are ever ready to do some dangerous or violent act. These dangerously insane persons may be able to read, write, and talk as well as ever, they may retain certain accomplishments, and yet are not safe to be at large. No single examination by a doctor could satisfy him that many of these persons require special care, and that they are not fit for liberty.

Attacks of insanity may leave the patient a complete wreck, or they may leave as a result minds with altered adjustments, so that in one case the lower or more organic part of a man has an inordinate power, while in another this same organic life may be so deficient as to endanger the life of the man. In other cases attacks of insanity leave a few prominent delusions which may be morbid outgrowths from the delusions of the acute disorder; or they may be growths developing from the lower part of the man's nature, unrestrained by his higher powers, growing from absence of control. Thus cases of monomania may arise.

Besides the above cases, due to disease, natural progressive decay in neurotic subjects may give rise to all sorts of chronic perversions, and to states of mental weakness of various kinds.

There are many other groups of cases which might be referred to. In some with strong inheritance a bias sets in at certain ages which may lead to the special overgrowth of one side of a man's character, and may thus overbalance his mind. In some cases sense-perversion seems at the root of the disturbance. The two chief points in which cases belonging to the above groups agree are their inability to fulfil their old functions, and the perversion of their social feelings.

I shall begin with a description of some of the **cases of chronic incurable lunatics;** those who have survived the storm, but are mental wrecks.

For convenience I shall briefly trace the development of examples of such cases from the beginning. A full clinical description of any one case would be impossible; for as soon as the mental storm has ceased, and the patient has passed into a condition of chronic mental unsoundness, the life passes monotonously, and with comparatively few changes, lasting often to an extreme length, so that on the incurable fund of Bethlem, as on a pensioners' list, there are always aged survivors.

Characteristic case of chronic mania.—A woman, forty-one years of age at the time of her admission into Bethlem, the wife of a member of her late Majesty's Household, had an attack of insanity when twenty-three years old. As a girl she had been a circus rider of considerable personal attractions, and of distinction in the ring. She married, but had no children. She became affected by melancholia, and had ideas that through some fault of hers her husband was ruined. She attempted to strangle herself. Before admis-

sion, for a time she was intemperate. The condition of melancholy continued for years, so that she would sit about the wards unoccupied, taking no interest in what was passing around her, eating but little food, quiet, but sleepless at night. After a prolonged period of mental depression she had a correspondingly prolonged period of mental excitement; she became dangerous and violent, and her language was abusive and obscene. She was described as being a very demon when roused. She was full of delusions, said she had been killed in various ways, and was also possessed with the idea that she was very wealthy. When first I knew her she was the terror of the ward, and I have frequently seen her attack attendants and medical officers in an extremely brutal way. She at that time traced some connection between the Royal Family and herself, and would take a visitor up to a picture of the Queen, and say, "That is me when I was a child." Incoherence, violence, and coarse language were the order of the day for years; but I determined to remove her from the companionship of the noisy and acute cases with whom she had associated for over thirty years, and place her in a small infirmary in which were only five quiet cases. The result was satisfactory in so far that, although her tongue had not ceased from abuse, her language was less coarse, and her dress and mode of life much more satisfactory, than when she was acting in harmony with her more boisterous surroundings.

General incoherence and hallucinations were the symptoms of this patient's mental condition. When spoken to she would talk in a rather strident voice volubly about "soldiers," "keep," "scrape," and other things which to us seem disconnected. Her dress was quaint. She would constantly appeal to the "invisibles," who appeared in her case

to address her generally from the chimney. She had apparently lost any real notion of age and general conditions of society, so that she, at Christmas, on receipt of a card with a cherub, would think that it represented a baby which she was going to have; her erotic tendencies were not extinct, and she still dreamed of marriage. Little disturbed her beyond some defect in the quantity or quality of her food. When excited she was easily roused to anger. She had no real affection for those about her, nor did she dwell with any fondness of memory upon the husband of her youth. Her general health was good, and in this condition of babbling, unstable weak-mindedness, exhibited by incoherent chatter, she might be expected to live till some unexpected bodily ailment carried her off. The case, then, was one in which a second attack of insanity was marked by prolonged melancholia, which passed into chronic weak-mindedness, associated with maniacal outbursts. This represented her state till her death.

Dementia with outbursts of mania.—Half of the work of county asylums is done by patients who belong to this class. I have been in the habit of pointing out, in going round the wards, those whom I called my advanced specialists, patients who would only perform certain limited actions. Thus, one woman for many years polished or scrubbed the floors, while another was only happy fitting stones or pebbles into gaps in the paths. Such represent the patients I am now referring to. If left alone they will behave quietly, but any interference with them, especially if it involve change in their habits or occupations, will be violently resisted. I sometimes compare the mental state of such cases to that of a mountain lake, on which a very small storm will produce a large amount of disturbance. The following is a striking example:—

William E—, a musician, aged thirty-two on admission, was placed on the incurable list in 1847, and from the first he was reported as dangerous until thoroughly known, and even then hard to manage. He decided to recognise his surname, and always when spoken to replied in an affected way. If his surname happened to be mentioned, and if he were in a good temper, he would say, "That man Bill E., of whom you speak, was removed from here long ago; I have only just come; I am Wilberforce or Guelph, the redeemer of the tribe of Judah." He used to stand on iron if he could find any about the wards, and would rub the back of his head to carry off the electricity with which he said he was charged, and would stuff the left side of his nostril to prevent the electricity from flowing into his penis. A thunderstorm had a most violently disturbing influence upon him, so that it was always necessary at such times carefully to avoid him. In this condition of delusions, with loss of identity, extreme irritability, and tendencies to violent outbursts, he lived till 1879, when he died from an attack of bronchitis.

These cases serve as good examples of the danger which would arise from following too generally the advice so freely given, to keep cases of chronic insanity out of asylums. Certain patients, no doubt, can be as well treated at home or in villages as in asylums, but it would be an extremely dangerous experiment to try to keep at large patients who are liable to outbursts of fury occurring without warning; or those who are disturbed by the slightest emotional storm, and who would inflict serious injury when enraged, and yet can in no way be influenced by dread of punishment or by ideas of responsibility.

Cases of chronic mania may remain as useful drudges for years, and then a fresh attack of acute

insanity may occur, leaving the patient still more weak-minded, more liable to recurrences of excitement; or in the second onset of acute insanity the whole aspect may be changed.

Case of weak-mindedness, with temporary return to sanity preceding the outbreak of a fresh attack of mania.—Thomas H., aged 53, a clerk, having no insane relations, was attacked by insanity, and taken to the Exeter asylum. The attack commenced with exalted ideas. He insisted on carving and presiding at every dinner-table; told his friends that he owned Buckingham Palace, and that the world and the sun obeyed his all-powerful control. From this acute state he passed into one of happy, contented weak-mindedness, which lasted for several years, and it is reported that the superintendent saw no prospect of any change. One day he began to talk quietly about his past life, and took an interest in his family and business relationships. He wrote several sensible letters, and made inquiries as to the welfare of those connected with him. This period lasted under two weeks, when he became violently maniacal with exaltation of ideas, sleepless, and in his restless excitement was constantly occupied in converting his pillow into the Prince Consort; the excitement showing no signs of abatement, he was transferred to another asylum in a state of chronic mania.

Case in which a fresh attack of melancholia followed years of quiet, contented weak-mindedness.—John C., a farm bailiff, aged 39, was admitted into Bethlem in 1861, suffering from a first attack of insanity, said to have been associated with an ulcerated leg. It began with melancholic symptoms, alternating with excitement, and with ideas that he was being poisoned. For the next ten years his symptoms became those of the ordinary

weak-minded drudge. From morning to night he was tidying, scrubbing, and putting his room in order. He was allowed great liberty, so that he wandered about the grounds collecting trifles, and latterly took to repairing the paths in the gardens. This occupation seems to have given him endless satisfaction and pleasure, and the elaborate way in which he arranged every particular stone in the place he wished it to occupy formed a good instance of a power for application to detail connected with absolute weak-mindedness. Without any warning, on the 10th of February, 1883, he became torpid and was anxious to stop in bed. When spoken to he said the devil had got hold of him; and no amount of coaxing or persuasion would induce him to resume his old occupations. On investigation I found he was markedly more feeble, his arteries more rigid, and his respiration less free than formerly. There appeared to be a general reduction of physical power, associated with melancholia.

It is well also to remember, that although many of these cases of chronic mania seem to be quiet and harmless, yet many of them have acquired habits quite incompatible with their being at large. Thus, one patient in Bethlem, who was of gentle birth and of superior education, became a useful aid and thoroughly trustworthy in many respects, but was not only given to irritating and pinching other patients, but had habits of collecting rubbish, filth, and the like in his pockets. Some lose all delicate sensibility, so that one will swallow leaves, filth, or other refuse, while another will expose his penis on every occasion.

Conditions of weak-mindedness associated with melancholic symptoms. Chronic melancholia.—Just as we saw in acute melancholia that there may be active, passive, or stupid melancholy, and that

there may be melancholia with or without delusions, so in considering the chronic incurable cases it is noteworthy that some are actively melancholic from the beginning to the end, while others are chronically passive. This was marked in a case of a woman, forty-five years old, admitted into Bethlem in consequence of an attempt to strangle herself. On admission this patient moaned aloud and wrung her hands, saying she had destroyed the world. She was restless, miserable, solitary, and meagre. She not only continued in this state of agitation and melancholy for the one year during which she was in Bethlem, but in another asylum she continued for a further eight or nine years to lament in the same strain the evils she was causing. Such a case is all but hopeless, and although the general health was fair and the appetite improved and sleep better, yet the prospect of mental recovery was extremely small.

Another case was that of a widow, admitted suffering with melancholy of the passive type, overburdened with the idea that her unworthiness had caused the death of her husband and the ruin of her children, and that she, an unpardonable sinner, must live on for ages in her inhuman and unnatural condition; that nothing could save her from the living hell which she was now experiencing. Nothing roused her to action, and, unless moved by the attendants, she would sit from morning to night alone in a dark corner of the room. This condition of passive melancholia may last for years, generally ending in a somewhat more placid condition of weak-mindedness, but often with no visibly different symptoms occurring.

Other cases (and these, perhaps, the more commonly met with in Bethlem) are those suffering from *recurrent melancholia*. Thus, a widow was admitted to the incurable list of Bethlem, having

had five previous attacks of melancholia from which she had recovered: she had had a hard struggle for existence, in consequence of the state of her mental health. After admission she was desperately depressed and sleepless, refusing food, and insisting on remaining unoccupied; when spoken to, she replied in a whisper that she must be left to her fate, and that it was perfectly useless trying to do anything for her; that she was altogether a wicked person, and that no decent person ought to speak to her; that she was an outcast and could never be well or good again. The condition lasted for some months, then slowly passed off, leaving her in robust health, cheerful, contented, and obliging. This period of mental soundness continued for eighteen months, and then a cloud, similar to previous ones, settled upon her with the same symptoms. During the last few intervals of health I granted her a free pass to go in and out of the hospital at will. This she always used properly, and when she felt herself becoming melancholic she declined to make use of her freedom. It is hard to believe that this patient will ever remain permanently well; but during the past few years the attacks of mental depression have been fewer and at greater intervals, and the periods of contentment and health have been of longer duration. The more common result in such a case is, when old age comes on, for the patient to be more unstable, and ultimately to become more weak in mind. In Bethlem there are on the incurable list a fair number of such cases, who from their education and accomplishments, while they are in health, are useful aids towards the amusement of the more acute cases.

The next case also illustrates recurrency of melancholia. Samuel B., aged thirty-five when admitted to Bethlem, single, a stationer, had suffered

from one previous attack of insanity ten years before, and recovered. After a period of depression he became excitable, self-satisfied, and although incapable of being trusted, yet he was easily managed, and, if not interfered with, aided in work about the hospital. He was subject, at irregular intervals, to recurrences of depression, in which he refused food, and declined to speak. This stage was succeeded by extreme weakness. He had to be fed with the stomach-pump, and notwithstanding this became much emaciated. He slowly recovered from the period of depression. Attacks of this kind recurred, each seeming to leave him weaker in mind, so that he became a standing joke to the other patients on account of his dandified actions and gallant airs. He spent his time, and any spare money he became possessed of, in additions to his dress. This condition of things was maintained till he was sixty-three years of age, when again he felt sure he was unworthy. He was fully persuaded that something serious was going to happen, and that he ought not to eat. He declared that he was filled up, and that there was no more room for food. Inflammation of the right lung supervened, and he died. *Post mortem* his brain was found to be of fair weight, dura mater normal, excess of subarachnoid fluid, membranes free, marked depression at the junction of the first frontal with first ascending parietal convolution on right side. There were some signs of softening in the pons varolii; the rest of the viscera, except the lungs, were fairly healthy. This case is given as an example of the ordinary end of a case of recurrent melancholia.

Recurrent mania.—A governess who, on admission into Bethlem, was fifty-one years old, had strongly marked insane relationships in her family, one member or another exhibiting every

variety of neurosis. This was the first attack of insanity requiring removal to an asylum. She believed that people conspired against her, and periodically she had outbursts of extreme excitement. Each attack was, as a rule, preceded by a slight period of hypochondriacal depression, and at the same time there was change in her facial aspect, the attendants describing it as "grinny;" and I think "sardonic grin" very well describes the expression. For many years this patient's attacks were preceded by periods of mental health, lasting from six to eight weeks at a time, to be followed by a period of most violent and destructive mania. For instance, in one particular year she became excited on the 5th of January, and quiet again on the 13th of February; then excited on the 28th of May, and quiet once more on the 16th of July. In August a fresh attack of excitement was followed in September by quiet; in October again excitement, followed by quiet in November, and in the middle of November a fresh attack of violence occurred.

This, I may say, was a year of exceptional frequency of recurrence; but some years would pass with only three attacks. The characteristic of the attacks was, as I have said, a very short period of depression, as a rule, but sometimes there was no warning whatever; and I have known this patient dine quietly, and within five minutes of the conclusion of the meal be as destructive and violent as a patient could be. For days she would scream, threaten, and curse in the most terrible way, almost always using similar expressions in each attack, rhyming time after time on hell and devil; mistaking her relations if she happened to see them, and imagining that those who were dead were still about her. Night brought her no rest, and for weeks together this excitement

would rage. Her appetite was large and food was taken voraciously; her dress was disordered and torn, and her grey hair dishevelled and cast to the winds. No special warning heralded the cessation of the storm, but as it came so it left, sometimes absolutely suddenly, the patient being weakened and exhausted in mind and body for some time afterwards.

The chief peculiarity of this case is, that, having had very many of such terrific nerve storms, there was practically no intellectual degradation, so that in the intervals of calm this lady's memory, affections, and habits were just what they might have been without the recurrent mania. In my opinion this depends, to a great extent, upon her strong insane inheritance. As for treatment, it seems reasonable to try the effect of powerful remedies, such as hyoscyamine, before or after the commencement of each outbreak of mania; but I can only say that in this case I gave most powerful depressants and narcotics without any satisfactory result. For a time she was treated with hyoscyamine; but the effect was that the excitement was only temporarily allayed, while the appetite for food was destroyed, so that she became alarmingly weak. For two years I kept her almost constantly under the influence of conium juice, giving her this medicine in increasing doses up to four ounces, and I was inclined to believe that its use seemed to be, at all events, associated with fewer attacks, which were also less severe; nor was any damage done to her general health or appetite. Whether this was the result of years, or the effect of the medical treatment, I know not, but this patient had more than twelve months of quietness and sanity.

Secondary dementia lasting unchanged for fifty years, with progressive wasting of muscles.—Pris-

cilla R., aged 77 when admitted into Bethlem. At first she was mischievous, with periods of depression with refusal of food. For a few years regular attacks of excitement and depression occurred, and these ended in a state of dementia. The patient did nothing; she sat alone, but with a pleased smile always on her face; she neither spoke to nor associated with the other patients; she ate, drank, and slept. She could walk, but unless forced to do so would remain where she was placed. Every now and then she would make a chattering noise, and seemed childishly excited, but one could not trace any external cause for this excitement.

Her muscles steadily and uniformly wasted, till her hands and arms looked like a skin-covered skeleton.

This is a marked example of progressive removal of higher intellectual centres, which being so gradual has allowed accommodation. A more rapid process must have killed the patient long before.

Weak-mindedness with persistence of one or more morbid ideas is also common, and this group of cases leads very naturally to that in which we find patients with fixed delusions as of persecution, and others with monomaniacal ideas.

One lady, who had been over twenty years in Bethlem, was always quiet and well behaved; she shunned notice, and often students spent six months in the hospital without seeing her. She was possessed with the idea that Methuselah was coming for her, and so, regardless of other men, she guarded her faded charms for this father of mankind.

Chronic insanity with hypochondriacal delusions.—Jane J., single, 67, governess; first attack of insanity was in 1852. Several other attacks

followed, and at length, in 1857, she was placed on the incurable establishment of Bethlem.

She had melancholic ideas at one time, and was excited and maniacal at others; she believed the doctors and others were injuring her, and she complained of a feeling of confusion, her chief cry being to be "let alone and not bothered." She fancied things were done to annoy her, and that even the birds sang only to tease her.

At irregular intervals attacks of the above kind came on and passed away, leaving the lady again busy and pleasant. She was very handy with pen, pencil, and needle, and spent her time in writing a novel, drawing flowers, or doing fancy work; but during the periods of quiet she was fully possessed with the idea that she was making new lungs, and attendants objected to go out into the streets with her because of a blowing noise she made every few minutes, regardless of her surroundings.

At times she spent whole days and nights making distressing noises. It is interesting to note that this patient suffered from emphysema of the lungs. She remained full of hope of marrying.

Another lady who suffered from melancholia of the most profound kind for years passed into a state of partial weak-mindedness, which has long been little more than hypochondriasis. Her one object in life is to think of her ailments and of her misfortunes. Her letters are full of references to the buried past, and are of a childish character. Acute melancholia has changed the once active but emotionally religious woman into a confirmed hypochondriac, fit only for an asylum.

A similar case was that of a man referred to elsewhere, whose one idea was his coming meal, and his one expression was the character of that meal. He would thus in the morning from breakfast to

dinner time say once a minute, "I will have my dinner at one o'clock." He died at the age of 78.

Among cases of chronic insanity are placed those having more or less complete loss of mental power; this may be exhibited by loss of control, by sensory defect, by want of will-power or of memory, with survival of some human attributes. It may be characterised by insane habit, as when mania or melancholia becomes chronic. It may be marked by instability, so that there are periodical outbreaks or tendencies to be easily upset. It may be shown by the growth or persistence of delusions of any kind.

In these chronic states, requiring detention and supervision of the patient, treatment must naturally be limited to such means (sedatives, hypnotics, etc.) as will serve to tide over and mitigate intermittent excitement and depression.

Prognosis.—Though it is generally accepted that insanity which has lasted for a few years, and which has not changed during that time, is not likely to be recovered from, yet cures occur from time to time among the most chronic cases. In some cases, especially among women between forty and fifty years of age, a fresh vital balance is established, and with this there may, after years of alienation, be a return to sanity. In others, patients grow into certain habits, and unless removed they will remain till the end of their days placidly weak-minded.

I believe that removal from one asylum to another would be of great service in some cases; just as the bone-setter from time to time performs some extraordinary cure by breaking down adhesions round a joint, so the change to other surroundings may set free the latent powers of the mind.

Senile dementia.—This will be the most con-

venient place in which to refer to *senile dementia*, a condition in which the ordinary symptoms of

Fig. 14.—Destruction of medullated fibres in chronic mania × 30.

senility are morbidly exaggerated. Perception is enfeebled or disordered, so that mistakes of iden-

tity occur; attention-power and association-processes are weakened, and likewise the judgment. Emotionally there is hebetude, but depression and exaltation with excitement also occur. Impairment of memory is the most striking feature, especially memory for recent events, that for remote events being much less affected. Failure of orientation-power (ability to locate oneself) as to time and place is observed. There is also—and usually amongst the early symptoms—evidence of moral deterioration: indecent acts occur or acts of bestiality, the victims being often children; or theft is committed. Although enfeeblement of the intellect is the chief condition to be noted, with progressive deterioration of all the faculties of the mind, there are many cases in which the disorder of the emotions (affective disorder) is sufficiently striking to permit the use of the expressions "senile melancholia" and "senile mania." The former condition was illustrated by cases on p. 203. Senile mania is a term covering a wide range of symptoms, from fidgetty restlessness, with insomnia and chattering incoherence, with senseless rhyming and delusions of exaltation, to a condition of positive delirium with hallucinations, extreme restlessness, destructiveness, filthy habits, ceaseless noise, with rapid physical deterioration and death from exhaustion. These latter cases are among the most troublesome and anxious to be met with in asylums.

Lastly, in some senile cases *delusions* constitute the prominent feature, so that the patient is hallucinated, suspicious, with well-marked ideas of persecution, such as are later described under the head of Delusional Insanity. But in whatever form the mental disorder shows itself, the impress of senility is manifest and appears in the mental and physical symptoms.

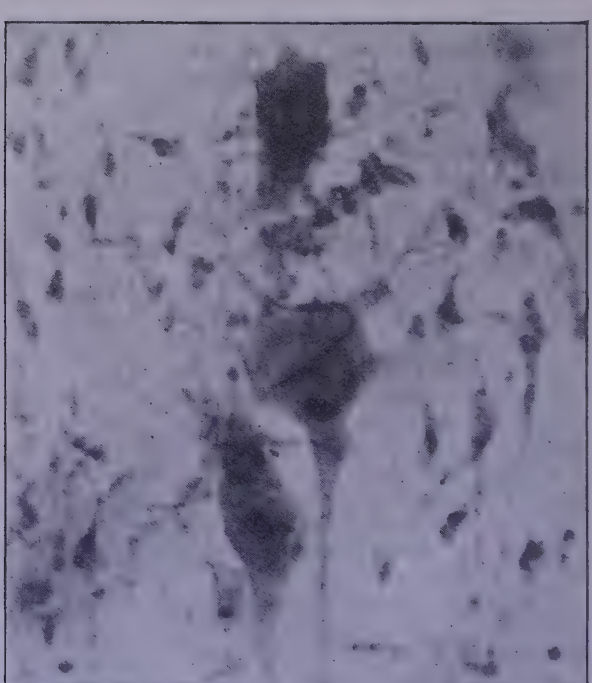

Fig. 15.—Cell degeneration in chronic mania. The lower pole of the uppermost cell and the body of the lowermost show darkened areas, and at the base of the middle cell a light segment is shown: these portions are the seat of yellow pigment deposit. × 300.

Among the latter, sluggishness of bladder and bowel are to be noted. Arterio-sclerosis is frequent.

Post mortem we commonly find in cases of senile

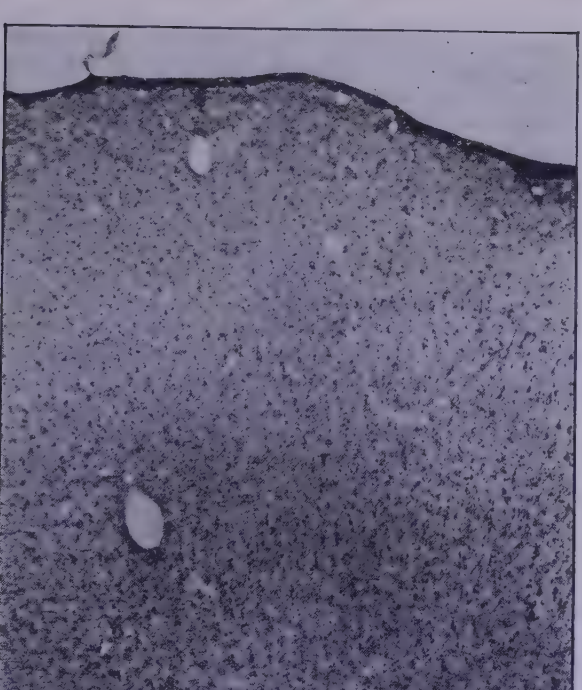

Fig. 16.—Sclerosis of cortex (increase of connective tissue), especially marked in the outermost portion, in chronic mania. × 30.

dementia widespread atrophy of the cerebral gyri with loss of brain-weight; the sulci gape, the leptomenings (pia-arachnoid) are thickened, presenting a cloudy opacity, the dura and even the

skull are thickened and denser, the cerebral fluid is in excess. Foci of yellow softening may occur. Microscopically, there is evidence of chronic changes in the nerve-cells, which show sclerosis and atrophy and pigmentation, but acute changes sometimes are seen. The neuro-fibrillæ of the cells are absent or abnormal. The nerve-fibres are atrophied. The glia nuclei are increased. Arterio-sclerosis is found. Foci of sclerosis occur in the cortex which are referable to this condition, degeneration of the tissues being induced thereby, with secondary proliferation of the glia.

But little can be said as to *treatment* in these cases. They naturally tend to a fatal issue, but improvement and even recovery are not precluded. Insomnia and restlessness have to be met; chloral, owing to the frequent cardiac debility presented, is not so suitable as in other conditions. Fracture of bones and bed-sores are to be guarded against, as also is accumulation of urine. Food and warmth have particularly to be cared for.

CHAPTER XII.

DELUSIONAL INSANITY—HALLUCINATIONS.

Hallucinations of hearing, of sight, of taste, of smell—Hallucinations of sensibility—The "sexual vampire" delusion—Simple suspicion with hallucinations—Acute hallucinational insanity—Delirium of persecution—Inquisitive or meddlesome cases—Sexual delusions in women—Delusional insanity with exaltation—Delusional insanity with jealousy—Symbolising insanity—Paranoia.

Chronic insanity associated with hallucinations and delusions.—In this group of cases I shall have to describe a class of patients who have generally been placed with those suffering from mental weakness; but there seem to be several objections to this, the chief one being that, except from an expert's point of view, these patients are often extremely shrewd, and exhibit none of the ordinary symptoms of weak-mindedness, their memories being good, their volition strong, and their emotions well under control. They differ from those whom we call sane in having sense impressions which differ entirely from the sense impressions of the ordinary person, or in having some fixed idea, which owes its origin to some sensation and feeling which we do not understand; and this delusion, like the hypochondriac's sensation, is not to be removed by argument. Such persons have a faculty of faith; "they cannot reason, they can only feel." Any one of the senses may mislead the mind, and any false idea may become fixed; but the interest in these cases lies in the fact that though so many possible combinations of

symptoms might occur, practically the groupings are few and definite in character.

In most cases these ideas have a direct relationship to the preservation of the individual or to the existence of society. They belong to his social side. Suspicion, jealousy, and the like, represent the character of the delusion.

I am quite unable here to fully enter into the development of hallucinations; but I shall take this opportunity of briefly referring to some of the chief varieties, and I shall take occasion to illustrate them by typical examples.

Hallucinations may be described as sense-impressions resulting without any external stimulus, so that hallucinations of sight may occur in darkness or to blind eyes; and hallucinations of hearing are to be met with not uncommonly among deaf patients as well as in the stillness of night. On the other hand an *illusion* is said to exist when a stimulus is present but is misperceived, so that a false sense-impression results. Thus, *muscæ volitantes* may be mistaken for vermin, and similar instances for other senses will readily suggest themselves. Hallucinations may occur in any one of the senses; they may occur in one of the bi-lateral senses, so that one ear alone may be subject to hallucinations. Hallucinations may occur in various forms of mental disorder; hallucinations of sight being very common in some of the more acute cases of mania as well as in delirium. In fact, hallucinations of all the senses may occur in mania similar to those met with in delirium.

Hallucinations of hearing are the most common, "voices" being most frequently met with; the voices may speak in a whisper at a distance, may speak directly into the ear, or may shout loudly, or even scream. They may be heard from above or from below, in the chimney or under the

floor. The "voice" may appear as that of a man or woman; it may be recognised as friendly or inimical; it may appear to be in a monotone, or it may appear as a chant. Besides "voices," the patients may hear buzzings or thumpings as of a hammer, or of a drag on a carriage, or there may

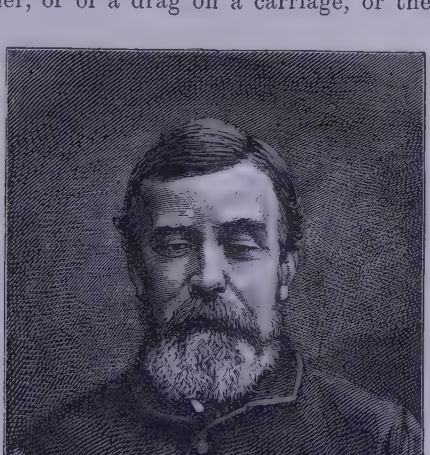

Fig. 17.—Case of delusional insanity with hallucinations of hearing.

be whistlings, growlings, or, what is comparatively common, ringing of bells, or the knocking of nails in a supposed coffin. A medical friend of mine suffered for some time with hallucinations of hearing, which at one period caused him to discharge his coachman because he believed he was always using the drag on the wheel, and later he was constantly annoyed by what he believed to be runaway rings at his night-bell. I would say that, as

a rule, hallucinations with recovery become fainter and fainter, as if a distance were being placed between them and the hearer.

It does not follow that persons having hallucinations should necessarily be of unsound mind, but there are two conditions in which their presence is of great consequence. In a patient predisposed to insanity by inheritance, or one who has had previous attacks, any recurrence of hallucinations should render the friends on their guard and cause extra caution. And again, if a patient has suffered from insanity, in which hallucinations have been prominent symptoms, it is well not to discharge him finally as recovered till all hallucinations have passed away. I have known one patient in Bethlem, who told me that for months before it was necessary for her to be sent from home, she heard voices up the chimney, and that she treated them exactly as she would wandering thoughts when reading a book, by an involuntary shake of the head, and a fresh application to the work in hand; but, as she lost physical strength, she found this impossible, and in the end the voices controlled her, and not she the voices.

In another case, the patient, who had suffered from profound melancholia with ideas that she was ruined and must go to the workhouse, having lost these melancholic ideas, yet told me that when reading to herself, or thinking, everything she either read and comprehended or that she thought carefully about was repeated in a peculiar musical way two feet above her head. Hallucinations of hearing, then, may be associated with various forms of insanity. As a rule, they are painful impressions; but I had formerly in Bethlem a patient who enjoyed, as he said, his conversations with a French lady who went for walks with him. In

this case hallucinations of hearing were associated with other hallucinations, and when he enjoyed those pleasant hallucinations of hearing he also perceived a pleasant odour; but when, later in his disorder, he suffered from two voices wrangling about him, the querulous and opposing voice was associated with a disagreeable smell. In this case the patient finally developed the idea that he had a spiritual wife within him who communed constantly with him, and who had prophetic, spiritualistic, and mesmeric powers.

The next point for consideration in respect to hallucinations of hearing is the power which patients suppose to be possessed by others of reading their thoughts. There are always patients whose chief complaint is that persons know their thoughts, or know more about them than they ought; they seem to be unduly sensitive, as it were, to their neighbours. Such patients may say they have "loud thoughts," and they will avoid every contact with others for fear that their inner life may be known. A patient in Bethlem would not allow any one to sit within earshot of him, if he could help it. Another patient was admitted because he had committed assaults upon people for no other reason than that they knew too much about him. This patient used to go early in the morning on the top of a hillock on Hampstead Heath, to keep a lookout that no one was observing him or taking his thoughts away from him. Another patient found that his thoughts were heard by some means, and were also answered; questions were constantly put to him by day and night, in the gallery, the airing-court, at the closet, and even at chapel; various taunts and insinuations were conveyed to him in this manner. He insisted that these voices came through a telephone; he

thought that with the microphone and telephone the slightest sound could be made audible. He was told by a voice one night that it was due to the pulsation of the brain, but he thought it might also be from the imperceptible action of his own organs of speech, for he finds that when he thinks vehemently the tongue moves slightly.

The way these feelings are interpreted is endless; one patient was very angry with me because he believed that I kept by me a most marvellous set of microphones and telephones which enabled me to follow the thoughts of each patient at will. With the development of any new instrument which becomes popularly known, there is always a free use of the discovery made by the insane; and in Bethlem one hears of every variety of telephonic communication.

Hallucinations of sight are not so common as hallucinations of hearing; they are met with in conditions allied to delirium, and in acute delirious mania patients see all sorts of moving bodies. In a few cases of mania there are visions of horror; and, associated with religious melancholia, visions of hell, of angels, of threatening spirits, and the like, are seen. In many cases, especially when ideas of persecution exist, dead friends are seen, and some chronic lunatics thus appear to be spiritualists. Occasionally associated with hallucinations of sight, ideas of filthiness or contagiousness are met with, and especially those patients who believe they have the itch will, at the same time, often declare themselves to be filthy. In one or two cases I have met with hallucinations of sight, which seemed to be but the misinterpretation of *muscæ volitantes*. One lady was constantly shaking her handkerchief in front of her face, rubbing her hands on parts of her dress, and then, unless prevented, would throw the handkerchief into the fire,

believing it was covered with vermin. Her description of the upward and downward movements of the vermin corresponded to the ordinary movements of *muscæ volitantes*. A number of patients suffering from chronic insanity, who believe themselves to be watched, persecuted, or otherwise influenced from without, think that certain "phantasmagoria," as they call them, are played before them at night to alarm or injure them. Occasionally, but rarely, the patient may be induced to draw his ideas of what he sees; but I have never been able to get a satisfactory, or, in fact, comprehensible vision represented by an insane person.

The other senses are less highly developed, and the exhibition of disorder in their action is less marked and varied.

With **taste** we get hallucirations, or, more commonly still, illusions associated with ideas of poison. In many cases, young women with ovarian disturbances, and, perhaps, sickness, refuse food, complaining of bad smells and tastes of poison. I have seen the same refusal of food due to the same hallucinations in a woman who had had children, and was therefore used to the vomiting of pregnancy; yet when insane she explained her sickness as due to metallic poisoning. In phthisis, again, patients frequently refuse their food, believing they are being poisoned. Insane patients may complain of poisoning, or of acid tastes allied to that produced by electricity, but very commonly the complaint is either that drugs are put into the food, with the intention of producing insanity or insensibility, or that filth of some kind, most commonly fæcal, is administered with drink or meat. Others fancy human flesh or blood is given them. Some patients say that all power of discrimination has been lost, and that their taste, in fact, has been taken away. Hallucinations of taste may

occur with ordinary mania, but are more common in melancholia and in conditions of weak-mindedness.

The **hallucinations of smell** are very similar to those of taste. Occasionally, in the excitement of mania and of general paralysis, there are pleasant hallucinations of smell; but in many cases of mental depression, especially those associated with ovarian and uterine trouble, the smells are of an unpleasant kind, one woman complaining of dead bodies near her, while another thinks a smell of dung pervades the room, or emanates from her own body. A few complain of a pungent odour like that of ammonia, and certain "miserable sinners" complain of a foretaste of hell in the shape of smells of brimstone. It has been said that in general paralysis the patient early loses the power of discriminating the smell of pepper, but in my experience this is not at all a common defect in such cases.

The last point to consider here is **common sensibility,** and its endless perversions. Patients, especially at the climacteric, are in the habit of complaining that they are badly treated; that, in fact, persons take liberties with them, and they will describe hideous tortures to which they are subjected. Some will accuse nurses and doctors of chloroforming them, of burning them during the night with acid, chloride of lime, or ammonia. The most common complaint, however, is that electricity, magnetism, galvanism, mesmerism, or some other subtle force is brought to bear upon them, and applied to torment them, by their enemies.

Mesmeric influence.—A patient's description of his hallucinations, taken down by the head attendant.—"I must see the Telephone Company with a view of learning the most recent investiga-

tions. My deductions since being here, from experiences in general, are as follows:

"I have heard the same set of three voices, including a female, with occasionally a third or fourth at intervals; these voices are those of my neighbour, J. B., of New Cross, and his wife; the voices have travelled with me for some eight miles from home; I have heard them make remarkably intelligent observations, always at the time of speaking accompanied by electrical vibrations or slight shocks, the farther away from the first starting-point the less disagreeable; they have used strong words as to business affairs which were being carried on at the time. They anticipate my words before they are spoken (this occurrence has only been noticed during the last three weeks). If I begin by uttering a sentence, and by effort abruptly check the thought, which is an exceedingly difficult matter, they make an observation; they can see me wherever I may be, or wherever the current is carried, by, I presume, the aid of two glasses; and have also from remarks made a figure of the human body, with its anatomical arrangements, so as to enable them to pass the current to any part of my body and receive the reflex; they can see by the figure's parts how such and such *directed* shocks emanating from the operator take effect, showing with what success the shot has succeeded. For example: many times when I have taken a seat a remark has been made such as this: 'We'll give his heart a touch!' Another voice asks, 'Which side is his heart?' The shock or shocks have been given on receiving the answer like the pricking of a pin, three or four generally. This is not particularly disagreeable, until it is repeated; then a remark is again made as to the pulsation. This generally is accompanied with a slight vibration under my feet, and through the chair to

my body. At other times it catches my thighs particularly, drawing me, as it were, downwards, always accompanied by some exceedingly disagreeable observations, in the gallery and elsewhere: 'There, now look at him; he can't stand. Look at him!' It takes all my effort to stand upright, by straining my muscles and withdrawing the strain again. This applies to particular parts of the carpet, and is not confined to the same parts, but varies as the operator says, 'Now give it him hot!' when I hear the battery working, and thirty seconds or so after comes the tingling sensation on the spot, which is continued for about thirty paces (I hear the wife saying, 'Try to get over them!') and if I stand produces the tension of my body, which would, without great effort on my part, compel me to fall. This applies to wherever I may be walking. I find these influences show themselves more decidedly when I wear boots with nails in the soles and heels, and particularly when walking between two iron gratings or other iron substances, or between two looking-glasses. I have discovered that walking at right angles saves me from getting a disagreeable jerking of my muscles, in comparison with turning a curve.

"The peculiar electrical influences when walking seem to be regulated at the operator's will. As regards the alteration of the spot, I always find (when I am sitting) about my head and neck a drawing sensation towards the window, especially between the shoulders; this I put down to the window frames being made of iron, which I have only lately discovered, as also the walking between the iron gratings. When at my meals the voices make remarks about my eating, and the way I use my knife and fork, etc. Sometimes I see in the room, like a flash across my face or by the side of my head, what appears like a fused length of silk

about eighteen inches long, which for the moment gives me a shock very suddenly, accompanied by terrible threats from the same voices at intervals. While I have been out in the gallery during Mr. D——'s (the attendant's) absence, the carpet has been exceedingly strongly charged, quite disabling me from standing still; the only means of saving myself from falling being to alternate my steps, and step from right to left. The carpet retains the electricity for a very short space of time, this being accompanied with such venomous remarks as the following: 'Oh, you —— W., my bowels are waiting patiently for you to-night!' The female voice bears all possible resemblance to that of Mrs. F., whom I know but very little of, but sufficient to recognise her voice. All throughout in her manner she has shown decided symptoms of hysteria, frequently crying out, 'Oh, Mr. W.! Mr. W.! what will become of your dear wife and children?' and then shortly afterwards remarks diametrically opposite. At other times she speaks in the ordinary rational way. The remarks from all four voices, or, possibly, five, are heard throughout, as though it were through an aperture or speaking-tube.

"In the atmosphere the prominent striking features that occur throughout the day are (1) as though a pellet something like a quid of tobacco was sent across the room with force against the wall or other object, apparently connected with the thread, as I have seen it occasionally partly in fusion (the voices are now saying, 'D—— him; we will have him off to-night!'), with a thud-like sound, have seen it strike a piece of newspaper on the couch, and move it (I possibly fancy this motion). As soon as the concussion is produced, there emanate from it a large number of these gossamer threads, known by their creeping sensation upon different parts of the body, each charged with

electricity, from the tingling sensation they produce, settling upon the clothes, and finding their way to the body by way of the neck-collar, wrist-bands, etc. (2) I have found, without exception, across all prominent doorways leading from the house, one of these threads, which catch the neck or face, and produce the same tingling sensation, which does not leave me throughout the day.

"I suppose that these threads are in connection with the battery, which, being of so delicate a substance, seems not to break, but rather give; or it may be, if it breaks, there is so strong an affinity to the two broken parts that they readily join again; such being the case would account for the medium being carried to an almost infinite distance.

"Second kind of discharge is like a sudden prick through the coat, aimed at a certain spot as spoken of by the operator, who appears taken off his guard, talking too loudly; the pricking or smarting comes direct to the spot (the pricking more frequent).

"Third kind, only heard in the bedroom at night. This is preceded by an extra violent exercising of the battery, result being a loud noise, always the same, resembling an iron plate being struck with a hammer, or a ball from Shoeburyness striking the butt or target; result, vibration in different parts of the bed, producing internal convulsive feelings, rising from the abdomen in spasms (not particularly painful, like wind), which rise to the region of the heart. Previous to the operator's performance, the question has been asked: 'Which side does W. lie?' Answer: 'On his right'; sometimes, 'Oh! I don't know' (the voices are again speaking, saying: 'Now, you ——, you will not get out; we have got you!'). The object sounds like a broken plate (but of course is not one). At

the time of concussion there seem to radiate from it several of the before-mentioned pellets, as they appear to drop on the bed, the pillow more frequently, only smaller than the pellets on the wall, making but a slight sound, and they seem singly to be inhaled, accompanied by a dryness of the thorax, as of thirst. Sensation: a strong feeling of faintness and desire to go to sleep, with the constant lulling sound, 'Go to sleep! go to sleep!' which was accompanied with the repeated remarks: 'I wish the —— ——,' or some other epithet, 'would go to sleep. Lor' bless you! his heart is almost stopped now.' I keep as quiet as possible. Another remark comes in a whisper: 'It's all up with him, I think.' This has occurred on about five occasions, in such a way as to produce a feeling of extreme exhaustion; and on rising in the morning, after hearing throughout the night plainly-spoken remarks, with oaths, 'He shan't leave the bedroom to-night alive,' the feeling has worn off to a great extent towards morning, when I have been able to get out of bed much to their expressed surprise.

"I believe (this I say with all solemnity) I should have succumbed on three occasions had it not been for feigning sleep, or from the operator (of which there are two or three engaged) giving in towards the last, with the remark, when told to set it on more strongly: 'I can't, and I won't, do the murderous job; let it stand till five o'clock in the morning.'

"Felt the tingling sensation about seven months ago, but at first did not pay much attention.

"The voices were here prominently about four months ago, when I began to get alarmed, as they were accompanied by exceedingly offensive epithets, and from ten weeks back by threats.

"During this morning, in the grounds, a

curious remark was made: 'It shall be his children next.'"

When referring to hallucinations of sight, I said that other hallucinations were frequently associated with them, and that a feeling of being dirty or filthy was not a rare accompaniment of visual hallucination. Some years ago we had at one time several cases of elderly spinsters in Bethlem who had probably spent a great part of their lives in tidying and dusting the relics which they kept in their prim little houses; dust and dirt were their abominations, and when they became insane they naturally developed from their uneasy feelings an idea that everything about them was filthy. In this case the quiet and discipline of an asylum enabled them to return once more to their old-maidish habits.

Galvanism is made use of to explain almost every disagreeable and morbid sensation which a patient experiences.

"Sexual vampires."—Another class of feelings relating to these must be alluded to here. A certain number of men, generally of young middle age, become possessed with the idea that they are being weakened by some process by which their virility is drawn off; and, just as I previously said that no class of patients is more suicidally inclined than those who believe themselves to be impotent, so none are more dangerous than those who believe themselves to be "tapped," "drawn," or "emasculated" by others. A patient in Bethlem, who had lost the sight of one eye, and who had been under the surgical care of a leading London oculist, became possessed with the idea that this oculist was able to weaken him by the removal of his semen; the consequence was that he was most murderously inclined, not only towards the oculist, but to all in any way connected or acquainted with him.

In a somewhat similar case, an older man, of very insane family, was impressed by the idea that there was a kind of society, the function of which was to "draw" men, as he called it. He seemed to look upon them as sexual vampires. He thought that the owner of a large private asylum had a staff of "runners," who pursued, debauched, and emasculated those who had been placed at any time under his medical care. This patient, being influenced by this idea, was found, when at large, with a dangerous-looking knife, in search of "runners"; and I have no doubt would have made an end of anyone he took to be such. In the end he was declared to be a lunatic, and was placed under the charge of the Lord Chancellor. I may say his delusion affected not only his ideas about himself, but also about others, and when addressing the special jury he told them that they, as honest men, knew that half of them were eunuchs.

So far, then, for the special relationship of hallucinations. After thus describing them, it will be only necessary to give examples of the more common ways in which they are combined. For convenience, I have separately grouped cases depending to a great extent upon hallucinations. As the sane mind is built up of sane impressions, so there are certain insane states which are the natural outcome of perverted sense-impressions. Whether the fault of the perversion arises from brain primarily, or from sense primarily, I cannot say; but the groups are natural.

Unduly sensitive persons are best understood if we compare their mental state with that of a man with a whitlow. The latter never seems able to move or act in any way without injuring his finger. It seems to him as if everything conspired to strike him on the tender spot. In healthy unconsciousness he was ignorant of the constant unrecorded

impressions this finger received, but now he is made particularly self-conscious. Certain insane patients are like the man with a whitlow; every action which takes place near them causes distress and pain, and all impressions distinctly and painfully affect them.

Simple suspicion with hallucinations.—A lady, about whom I was consulted, was in the habit of taking lodgings for herself and her maid at various watering-places in England. At the end of an uncertain period, she would quietly give notice to the landlady that she must leave at once, but that she would pay a month's rent in advance. This recurred so frequently that her friends, whom by the way she shunned, fancied some strange delusion must be the cause of her frequent flittings. It became evident that her movements were due to "voices." Each change was followed for a time by comparative freedom from mental trouble; but later, when, in fact, the stimulus of moving had worn off, she again heard people making remarks about her. Her education and bringing-up had so fully impressed upon her her duties as a lady, that when annoyed she simply took the most straightforward way of leaving the annoyance behind. In a person of the lower orders the chances are that another line of action would have been followed, and some one or other would have been knocked down.

The following cases are characterised by what I should call over-sensitiveness:

Acute hallucinational insanity, curable.—A young, over-wrought, nervous girl (A. W.), who has spent far too much time in book-learning and solitary study, having neglected the healthy outdoor exercises of her brothers and sisters, and having shunned meetings with the other sex, fails in appetite and digestion, and suffers considerably

from constipation, associated with "fulness of the head." Irregular menstruation, sometimes excessive and at other times painful or wanting, still further alters her bodily tone. From being amiable she becomes irritable, sleepless, and weak; she gets more and more self-conscious; thinks she has not done the best thing with her life, or that she has made some great mistake; becomes intolerant of correction by relations or governesses, and bursts into rages for which she does not appear contrite afterwards. Next, she avoids going out of doors, at first giving as an explanation that she does not care to go out; later, she owns that people make remarks about her, point at her, refer to her in one way or another. Unless energetic measures are taken early in these cases, such as removal from friends and surroundings, and forcing into a more objective mode of life, they will become either incurable cases of delusional insanity or weak-minded.

Another case (A. S.) developed the same symptoms under like conditions, but circumstances rendered it impossible for her to have any other treatment than that of an asylum; the consequence has been that the ideas of inspection, interference, and the like have become fixed, or at all events now recur so constantly that I fear she will never more be able to live at large. It is striking to notice the way in which delusions of this kind will grow and become mature, and remain in their fully-developed state for many years. Thus, from time to time, paragraphs will be noticed under the heading of "police news," in which a lady appeals to the magistrate for protection, or will ask his advice as to what she ought to do to prevent herself from being poisoned.

Many years ago, a lady of nervous inheritance was left a widow in poor circumstances, and had

a severe struggle to make both ends meet. With a solitary struggling life she slowly developed ideas that people were treating her badly; morbid sensations exhibited themselves, which she interpreted as the effect of poison; she appealed to the magistrates and took various articles of food to be analysed; the negative result of the analysis only confirmed her ideas that a conspiracy was formed against her; she became actively troublesome and annoying, and had to be sent to an asylum. Her hallucinations grew more and more fixed; with her, as with so many similar cases, the acuteness of their exhibitions varied considerably; and it was noteworthy that any special cause of physical depression was associated with an exacerbation of the hallucinations. She would behave quietly and appear fairly contented for weeks together, when she would, as the result of a cold or a fit of indigestion, complain bitterly that she could not live in the way she was at present living; for that on the night before she was certain that something was put on her pillow which produced profound unconsciousness, not natural sleep, and that during her unconsciousness all sorts of terrible things had been done to her. She was fully possessed with the idea that her all-powerful enemies were able to bribe or cozen the attendants, doctors, and everyone, from the highest to the lowest, to injure her. In confirmation of this, she would say her hair was rapidly coming out, and that this was due to one of the attendants putting something in the pomatum or oil which was sent up from the dispensary specially for her; and so suspicious was she, that unless the medicine was made up and given directly to the head attendant for her, she would decline to take it. This condition has lasted for years, and will continue as long as she lives.

The result of her case naturally leads me to refer to those suffering from what has been called the **delirium of persecution.** It is easy to understand how a patient who first of all believes himself to be watched, soon becomes persuaded that this watching is initiated by someone and for some object. As I pointed out in melancholia, the mysterious explanation is the one which appeals most readily to persons of unsound mind; and the man who is persecuted at once refers his troubles to the Jesuits or the Freemasons. More recently, secret societies and Fenians have taken the place of the Freemasons and Jesuits. There are some insane people who attribute their troubles to their neighbours because the "voices" appear to come from the wall. Detectives also play their part in the suspicions of this class of lunatics, but the typical cases of persecution seem pretty sure to pitch upon a secret association as a source of explanation of their sufferings.

The following case is an example: Thomas W. W., single, 26, writer in government employ, one sister an epileptic and insane, phthisis on mother's side; supposed cause was impairment of his sight. The symptoms came on steadily a month before his admission to the hospital. He had hallucinations of hearing "voices," and galvanic batteries disturbed him. He believed two persons conspired together to injure and annoy him. He complained of his head being affected. His general health was fair, he slept well when not disturbed, and ate well. The accompanying letter best explains his ideas:

"Bethlem Hospital

"St. George's Rd., Southwark, S.E.

"Revd. Sir,—I beg to lay before you the facts of my most distressing case, and I know that you

will, with your usual kindness, render me every assistance you can.

"I was brought here on March 5th, and have been subjected to galvanism ever since; that is, an hermaphrodite tries to drive me out of my mind by attempting to take my semen. It is a well-known fact in the medical profession that it can be done. The name of the lady is Miss B., daughter of Mr. B., of Guy's Hospital. The students at Guy's Hospital know some of the facts of the case, and I may mention that Dr. Savage, the head doctor of this hospital, a Guy's man, is my greatest enemy, because if he would let me have a Turkish bath I could get rid of the electricity in my body. I was galvanised so as to become a living magnet when I was at home ill. I was dragged home by three policemen, and then lodged in the workhouse before I came here, and was neither taken before a magistrate nor certified by two doctors. My sister Susan knows something of the case, but is afraid to tell my mother, whom I cannot convince, as she does not understand what galvanism will do, and will not consult a medical man.

"I have written to Sir J. B., my cousin, but I suppose the letters are stopped. My mother, I may say, admits that I am not insane, but I think my sister Susan works upon her mind with some tale that it will be eventually for my benefit. I may mention that there are two gentlemen in this hospital who have been driven out of their minds before they came here by galvanism. I am sorry to trouble you in the matter, but as you will see it is a matter of life and death to me, I hope you will pardon the liberty I take. If you let me have a solicitor to see me, I think he could obtain my release; or if you would write to my mother and convince her that galvanism can do what I say, I should be extremely grateful. I may say that every

day is of the greatest importance, as the galvanism annoys me more when I attempt by clandestine means to obtain my release from this horrible place.

"I am, revd. sir,

"Your most obedient servant,

"To the Rev. J—. "THOS. W. W.

"P.S.—The doctor is a friend of Mr. B.'s, and has admitted before the students that I am being annoyed by galvanism."

There is a general feeling that cases of insanity with ideas of persecution are highly unfavourable; but I would rather put it in this way: that when a patient has gradually passed through the various stages referred to, when he has suffered from simple unexplained misery, then has been annoyed by hallucinations of one kind and another, and slowly developed an explanation for the whole of these morbid feelings, that then the disordered process has been going on so long that the prospect of cure is small.

Another variety of delusional insanity is seen in what may be called the **inquisitive** or **meddlesome cases.** I have met with one patient, not in an asylum, who was constantly getting into trouble as a result of his inquisitiveness. He had a feeling that everything had some connection with him, and would ask to see private letters, or would "thrust his nose" into conversations in no way intended for him, the consequence being that he, on more than one occasion, got severely chastised. This feeling of extension of personal interest is a phase of mental over-sensitiveness, another side of which is seen in the following case:

Walter A., single, 27, no neurotic inheritance; supposed cause of his insanity was loss of fortune

and blighted prospects in life. He received a severe injury to his head two or three years before the appearance of his nervous symptoms. He attempted suicide in August, 1882, at the time believing there was a system of persecution against him. Everything depends now on his supposing that people are either whispering the word *bougre*, or are suggesting that he is a very objectionable man. Every act or word is misconstrued, yet this patient retains his ordinary mental capacity. I annex an account of the case compiled from particulars given by himself.

"When I set foot upon French soil, two years ago, I discovered a system of *en arrière* persecution, of people constantly taking notice of me, and supposing me to have the appearance of excessive venery. This *en arrière* persecution was introduced into every action of my life. I was in perfect health. When in France I went to various places, and spent some time at Dijon, where I was introduced into good society. I was kindly treated in every way, but I still thought that this *en arrière* persecution followed me everywhere I went. My father was very well off, and I would have been so had my father not lost almost everything he possessed, having had his mill destroyed by fire. This circumstance did not affect my mind in any way. I had a disappointment in love, but told nobody of it. This also did not affect my mental balance. The character of society, at the present time, is corruption, and I believe that to be the cause of my illness, my mind being sensitive. My will had been so affected by this *en arrière* persecution, that I got into a despairing condition, and threw myself over Westminster Bridge, when I was rescued by some bargemen, but I felt no regret at doing this rash act. I considered that there was no possibility for me to accomplish any work in

this world, therefore I attempted suicide. Even now I do not see my way to accomplish any work, but if I had absolute seclusion I should be able to do so; at present, however, I see no chance of it. I hear persons talking and discussing, in obscene terms, my condition, which offends me, and this occurs more when I am subjected to this *en arrière* persecution. I think the appearance of my eyes is that of excessive venery, and other people think so likewise. Since I have been in Bethlem this belief is not more fixed, and it remains as it was. I think that disappointment influenced my thought very much and undermined my life, and that my nervous constitution is also being slowly undermined, and that my lungs are a little affected. My appetite is good, but my rest is bad, having had hallucinations."

Sexual delusions in women. — Another variety of delusional insanity is common among women; thus, among younger women we occasionally meet with those who imagine that they have been injuriously affected by some man; and such patients will write compromising letters, or make accusations against gentlemen, demanding satisfaction, or that their characters shall be cleared before the public. I would say, as a practical point, that such patients are not, in my experience, those who demand money. It is not a purely mercenary consideration which influences them; the ways in which they believe themselves to be affected are almost endless. Thus, one girl said that a man at a distance caused her to feel all sorts of strong sexual desires, and that she was sure by some means or other he intended to get the better of her.

The ignorance of all physiology in which English girls are brought up, associated with narrow religious teaching, is answerable for a certain

number of cases of this description. A young girl at puberty feels strange and hitherto inexperienced sensations and desires; she becomes alarmed and anxious, and in some this gives place to a nervous exaggeration of the feeling of depression which is so common after or with menstruation. The morbid sensibility, further dwelt upon and explained, starts a delusion, which if not got rid of develops into a chronic incurable condition of the kind I am now considering. Other cases in which this type of delusion is common are those of single women about forty-five years old.

The following (McM.) is a good example: This patient was forty-three, single, with insanity on the father's side. She had been a governess, and had suffered from one previous attack of insanity. The first symptom noticed was her refusal to take food. She believed people were wishing to injure her; she feared she would be lynched by the mob, and insisted upon going straight to the Queen. She heard disturbances in the street which really did not exist. During the night she was convinced there were men in the hotel who were influencing her muscular and nervous systems, which she believed they were able to do without in any way approaching her. She screamed violently at night, and endeavoured to escape by means of the window. She said that disagreeable vapours were forced into her room, this symptom being not uncommon in similar cases. She imagined that all the men with whom she was brought into direct contact were wicked and unworthy, and that they fell under the influence of a certain major who was plotting to ruin her. This lady was constantly leaving good situations without cause given, for the reason that she fancied the major was following her, or was in the house trying to get at her. With her, as with many others suffering in a like manner, there

were ideas that the wicked major had a power of transforming himself and appearing in different ways and in various forms. Such a case as this is absolutely incurable.

Another marked case is that of a woman (L.) who was admitted into Bethlem affected with the delusion that she was followed by two men and a woman who were constantly prying into her affairs, and she said she would be glad if I could secure the services of a detective to arrest them. I asked her how she felt here. She answered, "They are constantly annoying me with telephones; and those who annoy me are a man and woman who constantly watch me; they look into my windows; they read everything I write; they know my thoughts before I speak; they prick me with a needle fixed in a wire, and they even get under my bed. They have constantly carried on this system of troubling me since I was at Marazion many weeks ago, and I believe that every workman in the neighbourhood is a conspirator with the telephone people to annoy me." In this case, again, I fear there is no prospect of cure. The only saving element was that it was associated with the climacteric, and certain cases recover then which otherwise would have to be considered incurable. From a practical point of view, it is noteworthy that patients may be extremely dangerous, by making accusations on the one hand, or by attempting to protect themselves on the other.

Delusional insanity with a strongly sexual character is common also in widows. We have, then, this very distinct group of cases in which there are perversions of feeling connected with the reproductive organs, associated with other perversions of the special senses, such as hallucinations of hearing and smell. These cases are most common in single women of mature age and in widows.

Not only are they dangerous from their tendency to make false accusations, but they are rarely curable.

Another case, somewhat different, is that of a music teacher (M. E. B.), single, aged 31. Her father committed suicide, and her maternal aunt is now in an asylum. During the past two years she had exhibited symptoms of mental unsoundness, marked by nervous instability and fancifulness. Menstruation had been regular, and her general health good. She attempted to strangle herself because of her feelings of being pursued. She heard voices accusing her, but the idea that most especially annoyed her was that everything she came in contact with was stuffed with matches and pins. Her look of worried anxiety when she moved from one place to another was very striking, so that on meeting her you at first imagined that she had lost something and was seeking for it. She would at once tell you that the annoyance from these pins was extreme. When she got up in the morning, and, having washed herself, put on her first garment, she at once became uneasy, and reversed it again to see that there were really no pins there. This process of dressing and undressing occupied so much time, as a rule, that she was three hours every morning before she could go to breakfast. She would talk about her case in a fairly matter-of-fact way; and would ask whether it were better rapidly to get into her clothes, to submit to or struggle against the ideal misery, or whether it were better for her to examine and re-examine till she had, at all events, partly or temporarily satisfied herself.

Such cases occur, as I have said, chiefly in women. They are associated with fear, dread, doubt, and suspicion. They occur, I believe, chiefly in those with insane inheritance; in fact, in my

experience these cases are but slow, natural developments of a temperament which may be called the insane one; and just as there are certain patients with moral deficiencies who have strong insane inheritance, so there are others who come of insane stock and are predisposed to develop delusional insanity. The causation of this form of insanity is very obscure. There are undoubtedly predisposing influences, as in the case of an occupation which tends to a subjective life, so that the middle-aged governess and the struggling widow seem specially liable to be affected.

I must next refer to a group of **delusional cases with exalted ideas.** The "Queens" of an asylum are many, and as a rule must be looked upon as incurable. The cases I have hitherto been considering have been found to suffer from hallucinations of their senses; but, in this last group, frequently no hallucinations exist, but there are delusions of a pronounced type.

Example of delusional insanity with exaltation.—A lady, who had been brought up in luxury and surrounded by wealth, was suddenly thrown into a state of want through the insolvency of her father. She became more and more exacting, and more impressed with the position to which she believed herself still entitled. Slowly she became more reserved, and in the end was impressed with the idea that she was a queen, and that everything in the asylum belonged to her. From the time that this idea became fully established she has in no way changed, but behaves as a lady occupying herself in art of a rather wild description, and with literature in the shape of a French dictionary, which she is committing to memory, and she takes a fixed and supreme position as Queen Anne. In this happy belief she will remain as long as she lives. The development of ideas of grandeur

among women of this class is interesting; it is a slow, steady growth, and contrasts with the exaltation which is met with in youths without experience of the world, which is the simple unrestrained expression of buoyancy; and on the other hand it contrasts with the exaltation of the general paralytic, where I believe loss of self-control and increased vital action explain the temporary exaltation, which is like the flare of the rapidly-consuming wick. The mode of the growth of the exaltation in such cases is, to my mind, as follows:

Patients, hoping for a success which they are never likely to attain, build castles in the air which often become realities to them. It does not follow that all the castles are of the same type. One girl dwelt upon the image of her doctor till she believed that he was to be her husband. It mattered not that he was already a married man with a family. She was convinced that obstacles of that kind could be easily overcome, and that the person who represented himself to be a married man really was not married at all. In her case no amount of change of scene or occupation made any appreciable difference in her condition.

Another dangerous and troublesome variety of **delusional insanity** is **associated with jealousy.** A married person will sometimes get a fixed idea that the husband, or wife, as the case may be, is inconstant, and the very slightest occurrences may be a convincing proof of the truth of such accusations. A good example of the danger and of the difficulty of such cases is that of a man, married, aged forty, who had a large family. He was of a nervous, emotional disposition, given greatly to self-exaltation, and spent most of his time in what he thought was doing good to others, but allowing his wife to be the bread-winner. She

led an active, business-like life, and was successful in her endeavours. The husband began to wonder how she got on so well, and put it down as due to immorality; although one would have supposed that his experience of life would have taught him that a middle-aged married woman, with a family and small pretensions to good looks, would not have much opportunity of making a fortune immorally. Still, haunted by the idea that she was receiving visits from men, he tried every conceivable trick to surprise and detect her, and exposed her to all sorts of physical and moral indignities to trace her evil ways. He became dangerous, threatening her and vowing vengeance upon those whom he considered as her paramours. He was sent to Bethlem, where he behaved himself perfectly well as far as appearances went, and it was with considerable difficulty that I was able to detect his delusions, till one day my name was linked with that of his wife as co-respondent. This condition of delusion remained unaltered for some months; but I found him one day working and making himself useful in the wards, and shortly after he made a statement that he had lost all his suspicions, and owned himself to have been deluded. A change to the country was followed by a period of apparent health; but after a few months at home the whole of his suspicions returned, and he had to be secluded for the safety of his wife and friends. Since then he has been for some years at a county asylum, where, I believe, he will have to spend the rest of his life, as any return to his friends will be associated with a recurrence of his delusions, which will prove a source of annoyance and danger beyond the limits of endurance.

I have frequently been struck by the connected and reasonable way in which a patient would talk

about his delusion. In fact, unless one was absolutely in a position to contradict his premises, he must admit the conclusion. Delusions of jealousy may, however, be lost, and recovery be complete and permanent. One man told me, in the most circumstantial way, the whole history of his detection of his wife's wickedness, describing graphically the man, the place, and the occasion; winding up with an admission that when received into Bethlem he was suffering from mental depression, the result of this sad discovery; and thanking me for my kindness, he said he was anxious to leave the hospital, but not to return to his wife, who must now be separated from him for ever. I was astonished, but allowed him to leave the hospital for a month to live with a married son. At the end of the month he returned, and with tears told me that the accusation he had made against his wife was utterly unfounded, and that a more considerate, conscientious, and honourable woman never lived; that the only explanation he could give was, that it was the mental perversion which disease is said to cause, for his married life had been an unbroken calm.

In the next case a most extraordinary series of delusions, associated with hallucinations, had slowly developed. The patient's (M. R.) own version was, that on a certain evening, he and his wife being engaged playing a game of cards, the latter left the room, and from that time there was a complete confusion; in fact, although he remained just as he had been before this wife of his was spirited away, another woman, resembling her in every outward particular, took her place, assuming her seat at the card table, and accompanying him to bed. He admitted that she was the mother of some of his children; he believed that a strange but hideous play was being enacted, and that the

very names of his children were made to react upon them in what he called a "name-play"; that their whole lives were to be sacrificed for the supposed amusement of Jesuits or some other secret society. The following report sufficiently indicates the condition in which he was admitted into Bethlem: He was received on the 10th of February, 1883; has delusions that certain people whom he believes to be Roman Catholics are practising ghastly cruelties on him, by watching his wife and children, and substituting duplicates for them; thinks he is a duplicate, and says they are always signalling at him. He speaks of the cruelties as something dreadful, and says there is a ghastly Roman Catholic plot over the whole country, which causes substitutes to be made for all his relatives; that the originals are carried off to asylums and elsewhere, where they are cruelly treated; that words have special meanings apart from their ordinary signification, and that these meanings are only known to a few of the initiated; complains of loss of power in the extensor muscles of the right leg (no pain or tenderness); the right foot drags slightly. The prospect of any alteration in this case is of the smallest kind: first, from the length of time during which the symptoms have been developing, and secondly, from the completely organised form which they have assumed.

Another variety of delusional insanity is what has been called **symbolising insanity.** Patients, generally of the educated class, of middle age or advancing years, have a sensitiveness to their surroundings very like that I have already described, but with them the limits or suggestions refer indirectly, and not always unpleasantly, to them.

One, a most trustworthy business man, deve-

loped the idea that honours were in store for him if he only knew the way to get them; he believed there was a secret code which he had to find out and act upon. He would take his dinner, and then deeply lament that he had done it, fearing he might have neglected his opportunity. At night he would watch and pray, like a knight of old before his armour, fearing his chance might come unawares. Any movement of the slightest kind affected him, and he would not rest till he had assured himself that nothing had been meant.

Year after year passed, and still he was longing for honours which never came, and seeing fresh symbols in the simplest of actions.

The subjoined is a very good example of the class. In this case, hard, intellectual work which was not properly appreciated created discontent and a feeling of injustice which caused the man to seclude himself, and brood over his misfortunes, till he became possessed with the idea that there was a symbolism in everything which he saw or experienced; and the end is that this brilliant mind became entirely self-contained, its circle of interest narrowing from day to day.

H. L., single, aged 45, schoolmaster, no insane inheritance; the cause is supposed to have been sunstroke, but there was a question of acute alcoholism preceding it. Money losses, and failure of his school in consequence of fever breaking out among the pupils, were the chief factors in finally developing symptoms of insanity. These seemed causes enough in themselves, but he also formed a very good example of the natural development of insane symptoms from eccentric habits and solitude. He became melancholy, restless, and possessed with ideas that everything had some reference to him, and so impressed was he by this that he threatened to commit suicide to get rid of it.

He had in earlier life been brought up with a young lady as foster-brother, and when she married it seemed to have caused him a good deal of worry; not that he had made any advances towards her, but when it happened that she was removed from him he seemed deeply affected. This, however, passed off, and only reappeared when symptoms of insanity were developed. Then he became possessed with the idea that this lady was really his spiritual wife, and not only did he claim her, but he claimed her children too. His diary, which he kept partly in shorthand and partly in ordinary writing, gives a very good idea of the morbidly sensitive condition in which he was; for one day he would imagine the flower-pots of his opposite neighbours were placed in twos, thereby meaning he ought to be paired. On another morning he would fancy the flower-pots were arranged in threes or singly, and this again had an allusion to his anomalous condition, being spiritually married and yet single. He refused food, but declined to enter into any argument as to whether he was justified or not in trying to starve himself. During the whole time that he has been under observation he has refrained from having any communication with or associating in the amusements or occupations of other patients. He looks earnestly on the floor, and is doubtless occupied with hallucinations, this hypothesis being borne out by his diary, in which he constantly refers by name to his spiritual friend. I append a few of his notes taken from his diary:

"Ghosty, dear, why are you like a comet? Because you are so impalpable? No. Because you make us all think of our latter end? Good, but not it; try again. Because it will be 100,000 years before we see you again? Better; this would be

the height of conjugal felicity; what you aim at, Ghosty, is it not? No. This is it, Ghosty, dear: Because, as the comet approaches the centre of light, the size of the tail represents the waste of the head. Conservation of force, Ghosty! You can't get over that; that is too big for *you* even. Good night, Ghosty." On another page he writes to the Ghost as follows: "Mon cher ombre, je viens de voir 'La Dame aux Camélias;' l'entrée du père à la fin du troisième acte est bien arrangée, n'est-ce pas? J'ai pensé à toi, et, en criant, 'Mon ombrelle, mon ombrelle!' je me suis jeté dans tes bras, en imagination, mon chéri, tu sais. Vis à vis il y avait le Comte D——y et sa —— bonne. J'ai remarqué à moi-même, 'Voilà un mariage comme il faut.' Ah! mon ombre, mon ange gardien, tu sais tout; et tout ce que tu fais est pour le mieux. "Ton dévoué,

"——————."

In all the cases which I have already described under the head of delusional insanity, it will have been noticed that some perversion of sense, hallucinations of one kind or another, have slowly led up to the development of fixed delusions, and I fear that no amount of medical or general treatment is in any way likely to cure such cases. They are necessarily dangerous both to themselves and others during a considerable part of their course; but, in certain of the cases, with time comes on pronounced weakmindedness, or the delusions seem to become confined within definite limits, and in that manner are more easily reckoned upon; and, consequently, in some of these latter cases patients may be treated away from an asylum.

Paranoia.—Although some of the cases of delusional insanity described above might legiti-

mately be called cases of paranoia, some special reference to this condition is necessary. Paranoia may be defined as a state of fixed and systematized delusional insanity, a constitutional malady, springing from an hereditary basis, observed in its fully developed form in middle age (30—50), although the affected individual may from early years have appeared to be curious and eccentric. The growth of the disorder is slow. It is more common in men than in women. The beginning of the disease is imperceptible. The individual passes through a period of mental uneasiness, with self-analysis. He becomes reserved, distrustful, suspicious of those around; he believes that he is remarked upon, whispered about, pointed at and the like; that he is especially referred to in pulpit dissertations, paper notices, etc. Hallucinations and illusions are frequent. Ideas of persecution develop and become fixed—of conspiracies to poison, to do to death. The "delirium of persecution" may form the whole disorder or may be supplemented and largely succeeded by delusions of exaltation, so that the patient comes to think himself a person of importance, as having title, property and the like, as destined to play a part. The delusions, whatever their nature, whether of suspicion, jealousy, persecution, or exaltation, take up the patient's whole attention, and control his conduct, so that there is loss of interest in the ordinary affairs of life, except in so far as they are insanely believed to bear upon the patient's condition: in fact, marked exaltation of the *ego*.

Memory, association of ideas, reasoning power, will, are unaffected in paranoia. The fundamental feelings (pride, fear, ambition), bound up with the conception of personality, are perverted, but otherwise such emotional disturbance as the paranoiac exhibits is secondary and subsidiary to the

disorder of intellect. Mental activity in connection with the delusions is great; the patient expends much mental labour in studying everything connected with his "case." The paranoiac naturally comes frequently in contact with the law by reason of violence in speech or action. The delusions may for a period be successfully concealed. The delusional state remains unchanged for many years, but finally the delusions grow weaker and the agitation of mind associated with them passes away: thus the patient becomes more placid but not weak-minded. There are no physical symptoms. No treatment is effectual. The condition is incurable.

A special reference may be made to the *litigious variety* of paranoia, in which the patient believes himself injured in respect of his legal rights, acquires a smattering of legal phraseology from study of legal books, is constantly bringing actions and disputing legal decisions. Unless such individuals are placed under control they will in time ruin themselves and those dependent on them.

CHAPTER XIII.

MORAL INSANITY.

Loss or perversion of the higher social requirements as a symptom of disease—Moral perversion with and without mental weakness—Vice—Moral improvement sometimes the result of insanity—Kleptomania: two typical cases—Depraved tastes—Cruelty and vindictiveness—False accusations—"Wasters"—Sexual perversion—Nymphomania and satyriasis—Sexual inversion—Morbid associations—Sexual passion stimulated by the sight of blood.

All modern writers admit that there may be mental disorder in which the intellect is either fairly developed or unaffected by disease, and yet in which great moral disorder or defect is present. It has been maintained that where moral perversion exists there will also be found some intellectual want. Although moral perversion is generally associated with intellectual weakness of one kind or another, yet there are cases in which the chief mark of disorder is seen in breaches of the moral laws which society has found it necessary to establish. There is a borderland in which persons must be placed who are partly bad and partly mad; there are people who have not the power of controlling their lower instincts; in whom the animal propensities may override the intellectual. It is very easy to pass from the consideration of these borderland cases to those of the criminal classes pure and simple; the criminal classes must be looked upon from the nervous standpoint as unstable and prone to develop symptoms of nervous disease more readily than

the non-criminal classes. But besides the class of persons who may be said never to have developed into a higher moral and intellectual state, there are some who, having been once sane and self-restrained, become vicious as a result of mental disorder; and there is also a special class of young patients who from the first exhibit no distinctive intellectual loss, but may, in fact, be brilliant in some particulars, and yet without any moral sense.

Vice.—First, then, after attacks of insanity patients may become vicious. I have known a man go into an asylum with a history of good conduct and strictly moral behaviour. He has had a short, sharp attack of mania, followed by a slight period of depression. From that time, although sent from the asylum as having recovered, he has been an entirely changed man, for, instead of being sober and moral, he has now become intemperate and vicious. It is true that one sometimes sees the reverse take place, so that I have known a husband come, years after his wife has been discharged recovered from an attack of insanity, and say that not only has his wife remained well since her attack, but has been a changed woman, being more amiable and self-sacrificing than she was before. This is no single instance, but represents the change I am here referring to, a moral change, a change in temper and disposition, succeeding an attack of insanity.

Kleptomania.—Not only does one see a moral perversion, as generally understood, but I have seen at least a dozen cases in which the patients have become what is called kleptomaniacs after an attack of insanity, and they will act with the utmost deliberation and with apparent power of calculation and combination to effect their purposes. Thus, a French governess (Marie S.), age 26, single,

with no inheritance of insanity, was admitted into Bethlem in March, 1871. She was suffering from active melancholia (said to be caused by sunstroke), associated with constant restlessness, picking her dress and fingers. Complaints were made that she was filthy in her habits. She wanted someone to kill her, or to be allowed, as she said, to sleep for a fortnight. I may say that there was ground for believing that the French war of 1870 had caused her a good deal of anxiety. She improved considerably in general health, but persisted in saying she was a devil, though, nothwithstanding this, she continued to be active, pleasant, and rational in conversation. Later it was found that she had been in the habit of purloining articles of clothing belonging to other patients, securing in the most adroit way the best articles, especially those which were less recognisable, and effacing the various marks in ways which one could never discover. She was as able a liar as she was a thief, and protests of amendment and contrition were always followed in a short time by fresh depredations. This conduct, we found, was in direct opposition to all her old habits. She herself owned to the inability she felt to control this desire for appropriating goods, and said that, after all, she must be a devil to do such things.

Another case was that of a woman afflicted with insanity following child-birth, who became stout and weak-minded; although a useful drudge, she was untrustworthy where portable property was concerned. I sometimes make a distinction between those of our patients who, being weak-minded, are like magpies and collect anything that is bright and movable, and the other class, such as those above described, who are adept and cunning thieves, and will own and recognise their faults, though they are unable to amend them.

Whilst speaking of kleptomania and moral insanity, I would remark that, almost yearly, cases are admitted into Bethlem who have been taken before the magistrates accused of theft, many such cases proving to be in the early stage of general paralysis of the insane. Alcoholics also exhibit themselves as insane or unreasonable thieves. In my experience it has been more common to find the moral perversion represented by kleptomania, following an attack of insanity, among women than among men. But when it occurs as the result of direct insane inheritance, it may take place in either sex at any age. It is unnecessary to describe in detail the other moral perversions which may follow acute insanity; suffice it to say that intemperance in eating and drinking, in lust, in desire for property, or in any low taste, may occur in such cases.

Depraved tastes.—The next group of cases of moral insanity is by far the most difficult to deal with. They have been treated by the physician whose special study is idiocy, as well as by the family physician and the jurist, and each has found it difficult to know in what light to look upon these *mauvais sujets*. The history is generally of the following kind: One or both parents almost always belong to insane, or degenerating, or highly nervous stock. The child is either an only one, and the child of old age, or has had brothers and sisters some of whom have been deaf and dumb; or idiocy or epilepsy has occurred in the family; he was bright but restless and fretful in infancy, difficult to amuse or occupy; and as time went on he was characterised by being peculiar, either from being very bright or from having brilliant special endowments, so that he was perhaps attracted by music at an early age, and as soon as he could speak would hum correctly airs

he had heard. Or, there being nothing special in his early infancy, it was first noticed at school that he had depraved tastes, and it was found necessary to send him from school in consequence of immoral practices, or because of thieving or lying, and this although his master may have expressed regret, because he had shown special power for mathematics or a wonderfully retentive memory.

It is not uncommon for children of this kind to get on moderately well up to the age of puberty, and then become utterly unmanageable in consequence of the development of sexual desires and giving way most openly to masturbation; or, if boys, making attempts of every description to gratify their lusts upon children or women of any age. Such boys expose themselves indecently and misbehave openly. As a rule, they express contrition at the time they are caught and threatened, but the memory of the punishment never seems to be sufficient to restrain them when the next temptation comes. These patients are almost invariably immoral sexually, and are the most cunning of liars, so that on cross-examination they will answer so rapidly, and apparently so consistently, that an ordinary investigator may doubt whether there has not been some mistake in the accusation.

Cruelty and vindictiveness.—Some of these cases are horribly cruel, and others demoniacally vindictive. I have known them torture lower animals which were unable to defend themselves (for such patients are cowards) with red-hot irons, pins, needles, and the like, or by setting fire to them by means of turpentine or spirit. As to the vindictiveness exhibited by such patients, I was consulted once about a youth, the son of a clergyman, who was constantly setting fire to the houses of those with whom he was placed. He was, to all appearances, an ordinary looking lad, with a fair

amount of ability, but with the restless, uncontrolled nervous instability common in these cases. Each change of residence was associated with temporary amelioration, only to be followed by some coarse or gross act, which in turn, having been punished, was followed by some attempt to burn the house. In one case it was clear that a nervous lad of the same class, connected on the one hand with a family of high mathematical ability and on the other with a family of nervous instability, was morally insane; while possessed with the idea that he was injured, he would make accusations against people of robbing and ill-using him.

False accusations.—This symptom requires a few words of special reference. Certain persons, probably more frequently women than men, make lying accusations against persons of the other sex; and although it may be shown that such patients come of nervous stock, it will be hard to persuade the public to let them off on that plea. Constantly accusations, without the slightest truth in them, are made by morally insane patients; and those of us who have lived in an asylum can fully recognise the danger which the outside world runs from insane accusations, especially those made by patients who are intellectually bright but morally perverse.

The intellectual abilities of many of these morally insane people are striking, but they are further evidences of want of balance. One power or one faculty seems to have developed at the expense of all the rest, and it is common to see precocity in the morally insane. It may be sexual precocity, it may be calculating or mathematical ability of a certain kind, or a taste for and power of reproducing music; and, alone or combined with either or all of the above powers, there may be a memory of the most marvellous definiteness and

clearness, so that dates especially are recollected with wonderful precision.

The examples I have given illustrates one of the most difficult and most dangerous groups of insane patients. The patients, from their intellectual ability, completely upset the conventional ideas of insanity, and the presence of superior powers of mind with good memory seems to assure the ordinary observer that the acts, vicious or criminal, which have been perpetrated must have been performed by a responsible person. In some cases the physiognomy of the patient is in his favour.

What is to be done in such cases? To begin with, doubtless, the offspring of insane parents, or children with certain peculiarities of mind and body, require special education. Some of these patients are sent with benefit to asylums for idiots, but I am inclined to believe that they require careful individual training; and that with this continued from the age of four or five up to twenty, a certain number may be saved from perpetrating criminal acts. It is not well to overstimulate any intellectual powers they may possess, nor is it well to attempt to suppress them. Let the musical faculty be developed in a methodical way; but let a fair, yet not an exhausting, amount of care be devoted to memory and mathematics, and let outdoor exercise and gymnastics be cultivated. Every tendency to excitement should be avoided, and for the sake of other children the most careful isolation and supervision at night is necessary; but, with all this care, the result in most cases, it is to be feared, will be unsatisfactory.

"Wasters."—In other cases a change is noted at adolescence, and the history is that the youth affected has always been difficult to manage,

passionate, obstinate and wilful, rather unsocial; he often grows very rapidly and may become very tall. Sometimes between twelve and sixteen he ceases to make progress in his classes, and falls more and more out of harmony with his surroundings; there may or may not be evidence of some sexual fault, changes are tried, but he has to leave school, and as a rule all endeavours to find suitable employment for him fail. Often such youths are sober, though most smoke heavily; some are solitary, and others sexually vicious and spendthrifts.

The end of these patients is either permanent instability with shifting plans which always end in failure, or else prodigality, sensuality, and early death.

We need in England some certain process for the restraint of these morally weak wasters. A certain number of young men of neurotic stock have recurring outbreaks of this moral insanity, which generally ends in more or less permanent mental weakness. In young women similar disorders generally assume a more marked sexual aspect.

I have met with a considerable number of girls at about sixteen to twenty, who have been carefully brought up, but who have developed an insatiable lust. Such girls not unfrequently follow immoral lives for a time, and the prospect of reformation is slight. In some of these the love-making and the general amatory approaches are sought while actual sexual intercourse may be repellent. Sometimes the passion is centred in an individual who may be ignorant of it, and who may find himself very awkwardly placed by the adoration and persistent attentions of the girl. False accusations, forged letters, etc., may be the result of his irresponsiveness.

Sexual perversion.—This subject cannot be omitted from a manual on insanity, but it is very difficult to treat briefly, yet satisfactorily. There is a natural development of sexual desire in all normal persons. Its onset may be associated with adolescence or puberity, but in certain morbid mental states some form of sexual desire and its gratification may arise in very early years. I have met with spontaneous self-abuse at three years of age. Precocious sexual development usually occurs in children otherwise mentally deficient; it further tends to mental destruction, and may later appear as some form of sexual perversion. I have had no experience of removal of the testes in such cases; as exposure to X-rays is said to sterilise lower animals, some use of this may presently be suggested.

Sexual passion may develop in either sex to such a degree as to cause the individual to be a danger to society. The terms "nymphomania" and "satyriasis" express the condition in women and men respectively. Such a state may depend on excess of passion in youth or loss of control in old age. I consider that in many cases, particularly in women, certification and detention in asylums is necessary, and I do not hesitate to state as part of my certificate that the patient is suffering from moral insanity as evidenced by the facts communicated by the relations or friends.

Nymphomania may occur at the climacteric, and may give rise to immorality on the one hand or to domestic infelicity on the other. Low diet, free saline purgation, and absence from home are essential. I have found the bromides and salix niga in drachm doses of service in a few cases. In women, removal of the ovaries has been performed, but I have never been satisfied with the result.

Sexual inversion is not very common in

England, but I have met with it in both sexes under similar conditions. Rarely have I seen men and women who profess never to have had any sexual attraction to the other sex; in the majority masturbation which has passed from self-abuse to mutual onanism is the first stage. French novelists have treated of this morbid mental state, and it is evidently not uncommon in the higher classes on the Continent. It may persist for years with little or no effect on any but the moral nature. If marriage is contracted, it is, as a rule, a cause of misery, and there is no sexual gratification.

In England I more frequently meet with the inversion among those leading solitary or certainly celibate lives. Most of my experience has been with clergy and soldiers. The unhealthy emotional life of celibate priests, associated with religion and music, may lead to this perversion. Some men show strange fascination for uniforms of all kinds—soldiers, telegraph boys, postmen, etc., being their attraction.

I have mentioned this group with moral insanity, though I should hesitate to appear in the witness-box to defend these cases on the ground of recognised insanity.

The next class is very difficult to arrange, though the chief defect is certainly a mental one. There is a **morbid association** which becomes fixed. That there should be established a relationship between the garments worn by the other sex and the sexual act is natural, and the presence of certain sights or smells may be stimulants to passion. In the animal kingdom we recognise sexual selection and its decorative development, and in man similar sensations may be perverted. I was consulted by a man who bought very costly undergarments and had sexual emotion produced by handling these.

I have met several in whom the possession, or even the sight, of a woman's boot similarly stimulated the passion. I have met instances in which some association of touch was the chief stimulus; in one case it was velvet, and in another it was sealskin.

This class of patients has been placed with those suffering from obsessions and imperative ideas. For the gratification of these passions crimes may result, dishonesty, or even personal assaults may follow. And here I may mention that in one dangerous group there is a true *blood-lust*. The sight of blood produces strong sexual excitement in some persons, and I have known such to frequent the slaughter-houses, or even attempt to wound women and children. It is quite possible that "Jack the Ripper" was such a one.

CHAPTER XIV.

GENERAL PARALYSIS OF THE INSANE.

General paralysis without insanity — Nature of general paralysis of the insane—A progressive disease—Age—Causation—Varieties.

By far the most interesting group of cases, from a scientific point of view, which one has to consider in an asylum is that of general paralysis. This disease, unlike many of the so-called neuroses, has undoubtedly a physical basis, and, in my belief, the keystone of the nervous pathological arch is general paralysis. The disease, chiefly affecting the robust, middle-aged, active-minded man, rapidly destroys everything human in him, leaving him to exist, often for months together, an unconscious automaton.

I believe that the disease can only fruitfully be studied and finally understood by subdividing the cases as much as possible into groups according to the symptoms; not with the idea that each subdivision represents a definite form of disease, but that there will thus be found certain natural groupings of bodily and mental symptoms. The study of the connection which will be seen to exist between these latter will sooner or later clear up many points in the pathology of the nervous system, and will also add not a little to the comprehension of mental function.

General paralysis without insanity.— The first question to be considered is, whether the disease called general paralysis of the insane deserves its name, and whether it must be considered

as necessarily connected with insanity. One of the questions which general physicians ask is, whether this same disease, which is called general paralysis, can exist without mental disorder. I always reply that I have seen several cases which for years have exhibited bodily symptoms in every particular coinciding with those found in the patients in our asylums suffering from general paralysis of the insane, and yet without the slightest evidence of insanity, even without any loss of memory or of self-control; so that, in fact, the patient was sound in mind although a general paralytic in body. The reason, I believe, that the condition has hitherto been misunderstood is, that asylum physicians rarely see cases in general hospitals; and general physicians only occasionally have the chance of watching true general paralysis. In my opinion, general paralysis in any of its forms may develop without mental symptoms for a considerable length of time; but unless cut short by some intercurrent or accidental cause, mental deterioration shows itself before the end. The symptoms may be only those of weak-mindedness, and may be so slight that comparatively little importance is attached to them.

In the next place I would say that the term "general paralysis" includes various forms of nervous degeneration, and that, in fact, the term as at present used includes several classes which will have to be sub-divided as our knowledge increases. Of these sub-divisions I shall have to speak more fully later; for I do not consider that the divisions which have been made, either on the clinical or the pathological side, are sufficiently precise. To say that one group of cases suffers from spinal general paralysis, and that another suffers from cerebral general paralysis, is not sufficient; nor is it satisfactory to speak of general paralysis in men,

general paralysis in women, and general paralysis in old people. It will be found impossible satisfactorily to divide the cases according to the condition of the brain as found after death. The disease is *general* in its cause and its effect, and in the brain we only take into consideration one of the factors of the disease.

I believe, then, that several distinct varieties of general paralysis exist, or rather that several distinct series of changes occur in the nervous centres, giving rise to a progressive and fatal nervous disease which has been called general paralysis. I can hardly be expected, therefore, to say that I believe general paralysis to be a definite and specific disease. I am in the habit of saying that, in my experience, any conditions which may start a progressive decay of the higher nervous tissues will give rise to symptoms resembling those which have been classified as general paralysis; that we have in such a diseased condition a gradual destruction of nerve centres. Moreover, it may be purely a matter of accident whether this be due in the first place to premature disease of arteries, or to malnutrition associated with constant strain, imperfect rest and regeneration of the nerve tissues; or whether, again, it be due to changes in the relations between brain and vessels following injury or inflammation.

A progressive disease.—That general paralysis is progressive is without contradiction; that it rarely affects a large part of the brain or nervous system suddenly is also a fact; that its action, whether upon the brain or cord, is very small and hard to be detected at first, I also believe; that it affects first the highest intellectual and motor acquirements is undoubted. Both Dr. Maudsley and I have independently taught that in this progressive degeneration the last and highest acquire-

ments fail first, so that the musician loses his power over his fingers, the seamstress can no longer sew, the *danseuse* fails in her *pas*, and the actress blurs her phrases and forgets her part. This effacement of the highest acquirements will be seen to be associated with the loss of self-control, and, in fact, the patient passes from his normal condition into a state as nearly as possible identical with that produced by mild alcoholism; and at least in one case I have been able to ascertain that the early symptoms of general paralysis resembled exactly those produced in the same patient when partly intoxicated. From the above I infer that the degeneration is one generally beginning in the highest and last organised parts of the nervous tissues, and that as it spreads it produces more and more marked signs of degeneration. The rapidity of degeneration, the amount of mental loss in a given time, differs in each case. Why this disease should specially affect men; why it should affect townsmen and men leading active industrious lives, men, as a rule, of good physique and active temperament, I cannot explain. The disease is special, in so far that it ends fatally in nearly all cases, and almost always in the same way; and that, whatever the earlier symptoms may have been, the later ones are similar to a remarkable degree.

It must be remembered that in an asylum other forms of paralysis occur. In Bethlem I have seen examples of almost every known variety of paralysis occurring quite independently of any symptoms which would incline one to suspect general paralysis. We have ordinary hemiplegia, paraplegia, disseminated sclerosis, locomotor ataxy, and bulbar paralysis, but these are not to be mistaken for cases of general paralysis of the insane.

Cases of general paralysis without insanity.—

I have said that general paralysis may occur in the sane, and I would here refer to several cases about which I have been consulted. The first is that of a married man, aged thirty-eight (no insanity in his family), who had led an active, industrious life. He came to see me in consequence of change in his handwriting and hesitation of speech. When I examined him I found that his pupils were unequal, his tongue tremulous, his handwriting shaky, with the tendency to drop terminal letters of words. There was a greatly increased patellar reflex; yet with all these bodily symptoms I could detect no change in his mental capacity whatever. His memory was good; he was not emotional; nor had he lost any power of self-control. This patient has for years been under my observation, and has shown no intellectual disturbance whatever, and at the present time I believe he is earning his living. The end will probably be weak-mindedness, but at present there are no points to guide one as to when it is going to develop. Constantly I am called upon to see cases in general hospitals in which the bodily symptoms are marked, while the mental ones are absent, or very slight.

In the next case the mental symptoms were extremely slight, although the bodily signs were distinct enough. A married man, at forty, had been for many years in the Custom House, and had a very keen delight in self-culture. He was one of the typical Englishmen of the middle classes who devote every spare moment to improving their minds. He told me that since boyhood he had been accustomed to carry about with him manuals of one science or another, foreign grammars, or other means of general education. He took little exercise, refrained from all stimulants, and led what might be called an exemplary life.

Six or seven months before he came to see me, he tottered in his walk, and noticed that his handwriting was changing in its character, and that he was no longer able to do the clerical work which was expected of him. When he first visited me he at once pointed to his head, and said that, like Swift, he was "going first at the top," and for a moment he appeared emotional; but by carefully avoiding reference to his physical weakness, he was induced to speak of his powers and abilities with considerable personal satisfaction. Since then I have seen him several times, and find that his muscular power is lessening, that he is ataxic in walk, with absence of patellar reflex, and that there is a general feeling of *bien-être* quite out of accord with his physical condition. In this case the bodily symptoms are much more pronounced than are the mental ones, but I have no doubt of the nature of the case, and the certainty of its unfavourable termination. Many other such cases are seen by me every year, but the examples I have given must suffice.

Age.—General paralysis is most common between the ages of thirty-five and fifty-five. Reference must be made to *juvenile* and *infantile* cases. These do not differ essentially from cases at the usual age-period, although the classic type of the disease is rare. The disease, when occurring in youths and children, is commonly due to inherited syphilis.

Causation of general paralysis.—It will be convenient to consider causation under one general heading, making no distinction between the groups of cases to which I have already referred, although I am sure it will be found that certain cases, depending on special causes for their origin, have special modes of development, and manifest corresponding peculiarities in the

symptoms. For example, traumatic general paralysis may differ essentially from that produced by alcoholism, and this again from that due to syphilis; however, it will be advisable for the present to avoid any particular differentiation of the causation, leaving this to a later stage, when we shall have before us all the symptoms. I will first consider the causation generally, as if the disease were a specific one.

Undoubtedly *sexual excess* may be a cause of general paralysis; it is certainly a very exhausting cause, but such excess is difficult to determine, for I suppose it is rare to find two individuals who are similarly liable to exhaustion from this or any one cause. Just as a slight alcoholic indulgence will produce intoxication with one, whilst another may require an enormous amount of alcohol to affect him; so with sexual indulgence, what is excess in one is moderation in another. There are patients admitted yearly into Bethlem whose disease I believe to be chiefly produced by sexual excess; but such men are generally not only living lives of general excitement, but are wedded to women of a specially amatory nature; and although it would be unscientific to connote excess as necessarily associated with certain types of women, I have been struck by the frequency of the occurrence of general paralysis in the husbands of women of voluptuous physique. Again, as with other disorders of the mind, it is often difficult to distinguish between early symptoms and causes. Undoubtedly sexual excess may have something to do with the production of general paralysis, but there is no doubt, also, that sexual excess is a common early symptom of the disease. I am quite sure I have been able to eliminate sexual excess from a considerable number of my cases, especially among women.

Alcoholism is also a recognised cause of mental degeneration, and alone or combined with other excesses and injuries is, to my mind, an undoubted cause of the disease. Alcohol is by many considered a cause only second in importance to syphilis. Its incidence as a cause is placed as high as 20 per cent.

Syphilis, which is supposed to play such an important *rôle* in most nervous disorders, especially those of an intricate kind, has also been credited with the production of a large amount of general paralysis. The statistics of different writers differ very greatly, the disease being referred to syphilis in from 20 to 90 per cent. of cases. Syphilis, however, or indeed any other cause, is but seldom present alone. Many years usually pass, about ten being a common figure, between infection and the appearance of general paralysis. The latter cannot be termed a late symptom of syphilis, but is a subsequent malady —a "meta-syphilitic" condition. Anti-syphilitic remedies are useless.

Psycho-neuropathic *heredity* is found in individuals affected by general paralysis in some 40 per cent. of cases. The disease may also occur after *acute infective disorders* (influenza has been noted of late years), and is described in Italy and Egypt as developing in connection with *pellagra* (*see* p. 487). Cases have also been ascribed to *insolation*.

Injury, too, must be credited with the causation of a certain number of cases, and probably most of those which are seen in general hospitals, and which have but little mental derangement, are those which follow injury.

The above are the chief physical causes, and on the moral side I would place, first of all, *anxiety*. I do not look upon general paralysis as the disease

of over-work, and although it seems steadily to increase with the increase of civilisation and with higher education, and although it appears now among women who are struggling to take the places of men, yet my experience is that the relationship is not with work, but with worry. General paralysis occurs mostly in the anxious-minded, conscientious man, and as far as my experience among the middle classes is concerned it is rather due to *over-strain* than over-work. Many examples occur in which the struggling man manifests symptoms of general paralysis just when success appears to have been achieved, and I have seen several cases in which the insanity and breakdown were attributed to retirement from active business, whereas the truth was that the over-strain which had secured a fortune had left the man a wreck. Occasionally one meets with cases in which the disease has been started by domestic unhappiness, but these are less common. Anxiety about business matters seems to be most disastrous. Some time ago a patient was admitted into Bethlem suffering from this disease, and I have no doubt it was produced in the following way. The man, an energetic manager of a successful business, prosecuted some workmen under him for neglect of their duties; he failed to get a conviction through a conspiracy of the workmen, and the result was that his life was rendered miserable by a system of threatening and intimidation. Sleeplessness, worry, and loss of appetite were followed by the ordinary signs of general paralysis of the insane.

To sum up, general paralysis usually arises from a combination of causes; the most common direct causes being excesses of all kinds, whether sexual or alcoholic, which act more powerfully when associated with strain, worry, and anxiety;

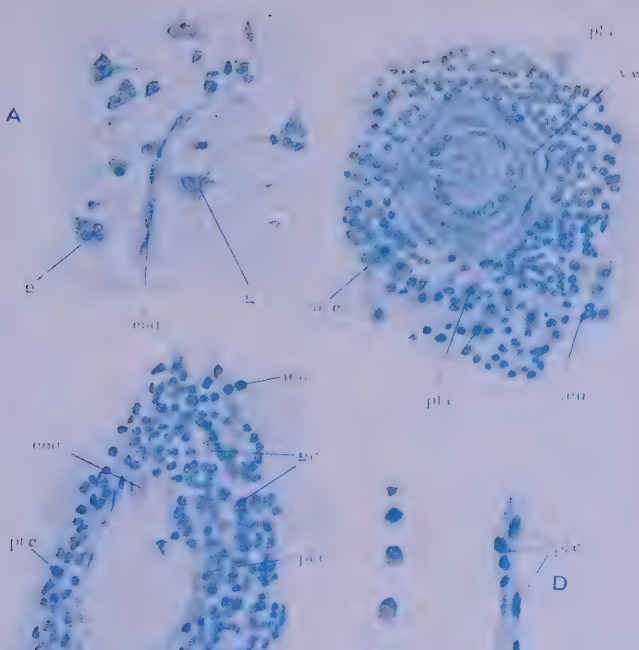

PLATE II.—INFLAMMATORY CHANGES IN THE CORTEX CEREBRI, SHOWING LEUCOCYTAL INFILTRATION, PLASMA CELLS, HYPERTROPHIED GLIA CELLS AND ENDOTHELIAL CELLS.

A, Small vessel from the superficial layer of the cortex in a case of acute G.P.I.; g., glia cells, the branched processes forming a network, and sometimes attaching themselves to the vessel walls; end., endothelial cells. Stained by the Nissl method. ×220. B, Section of a vessel from the white matter of the cortex of the same case, showing lymphocytes, plasma cells, granules, and endothelial cell proliferation; end., endothelial cells; pl.c., plasma cells; leu., leucocytes; gr., granules. Stained by the Nissl method. × 220. C, Trans-section of a vessel in a syphiloma of the brain; pl.c., plasma cells; leu., leucocytes; v.w., vessel wall. Stained by the Nissl method. × 220. D, From the cortex of a case of G.P.I. Stained by the Nissl method. × 220. A series to illustrate the growth of the plasma cell from the lymphocyte.

and, finally, we see that physical injuries may also produce the disease, as may also such physical diseases as syphilis.

Time is required to show whether there are adequate grounds for theories now being put forward as to the influence of auto-intoxication and bacterial infection; whether either of these processes is capable of producing general paralysis in an organism the resistance of which has been reduced by such causes as syphilis, alcoholism, and anxiety.

Varieties of general paralysis of the insane.—Under this heading I shall consider, first, the various forms of mental and bodily disorder which are classed as general paralysis. Undoubtedly there are some natural and some artificial divisions, and the whole arrangement must be considered as a provisional one. I shall divide the cases, first into *acute* and *chronic;* then into those in which the symptoms are *primary maniacal*, with exaltation of ideas; next the *melancholic* and *hypochondriacal* cases; and, lastly, those in which *dementia* is more or less pronounced from the onset. It will be seen in tracing the history of cases that they nearly all end in dementia sooner or later. I shall next consider whether the *brain* or the *cord* symptoms are the more marked, or come on the earlier; and when considering the latter I shall divide the cases into those in which the *posterior columns* of the cord are most affected, and those in which the *lateral columns* are chiefly involved. In considering cases I shall discuss the various symptoms which may occur, and later exemplify the symptoms by means of typical cases.

Dr. Mickle has described five groups of general paralysis, pathologically and clinically.

Undoubtedly there is a series of pathological changes connected with each definite group of

clinical symptoms, but a great deal remains to be done to associate these.

Besides ordinary cases of general paralysis, one meets with numerous cases in which there is some slight peculiarity, either as to the causation or course of the disease; or one or more of the symptoms may be unduly prominent; or symptoms which rarely occur may from time to time present themselves. Thus, although it is rare to meet with strabismus or ptosis in general paralysis, they do at times occur; and although fits are usual, yet the disease may run its course without their presence. General paralysis may follow upon some local disease; and just as I have seen symptoms of general paralysis develop on old locomotor ataxy, so I have seen it occur in cases which have suffered from some other nervous lesion, such as the paralysis of childhood. The special points of pathology and diagnosis will be considered in a later chapter.

CHAPTER XV.

GENERAL PARALYSIS OF THE INSANE

(continued).

Prodromal and initial symptoms—First stage—Second stage—Third stage—Examples of general paralysis of the insane—General paralysis with simple progressive dementia—With melancholic symptoms—With little tongue tremor—With ataxic symptoms—With lateral sclerosis of the cord—Cases with remissions—General paralysis of the double form.

In general paralysis of the insane there are three stages, as follows:—

First stage.—Mania, melancholia, dementia, convulsions, commonly lead to the

Second stage.—In all varieties this tends to dementia.

Third stage.—This stage of marked dementia is characterised by loss of control of rectum and bladder.

But before dealing with these stages, I must briefly describe the

Prodromal and initial symptoms.—The greatest medical importance still attaches to the very earliest stage of this disease, for if any good is to be done, it must be done early, before any well-marked symptoms, evidences of real degeneration, have shown themselves.

It is still very difficult to give any distinct answer to the question as to the length of time the warning symptoms may precede the evident signs of the disease. Generally after the disease has made itself evident, or after the death of the

patient, the friends will give further details which may enable one to trace the first steps in the morbid process.

I shall briefly refer to the warning or *prodromal* symptoms first, and next consider the *initial* symptoms. The *prodromal* symptoms may be either *bodily* or *mental*, or both.

The *bodily symptoms* are generally some degree of paralysis. Thus the wife of one patient in Bethlem noticed temporary loss of speech, followed by hesitation and tremor, nearly eight years before she suspected that any serious disease was imminent. The attacks of aphasia recurred at intervals, and when it was necessary to send the patient to an asylum, the difficulty of speech and tremor of tongue and lips were very marked.

In other cases, giddiness or attacks of vomiting may precede the disease. Loss of power in the lower extremities, too, is not uncommon, so that the history will be given of a fall as the cause of illness, whereas the fall was the earliest result of nervous change.

Locomotor ataxy, or some other form of paralysis, may exist long before general paralysis is detected.

Headache, or pains in the head of a variable kind, may be noticed. Slight convulsions may have occurred, and may have been recovered from and forgotten, till the general paralysis showed itself many years afterwards.

On the mental side there may have been noticed some moral or intellectual change, slowly or quickly changing the whole nature of the man.

In one case the patient had, for two years before he was suspected of illness, been guilty of mean acts and fraudulent appropriation of property.

These acts were done with great caution, and

with evident knowledge of the nature of the act and the liability attached, yet he ought not to be considered fully responsible.

Intemperance in drink, or in any other respect, may be the warning, and I have known a return to uxoriousness, or a development of jealousy or strong family affection, precede the outbreak of general paralysis.

Irritability, restlessness, broken sleep, or drowsiness, especially after meals, complaints of fatigue, may also be noteworthy.

Loss of memory for recent matters, for facts not for dates, names, or other abstract details, may occur. Complaints of loss of power and a kind of mental hypochondriasis may also serve as a warning. I have known more than one man who has told me that he was sure he was going mad; and in one case a doctor told me he was suffering from this disease, though after telling me this he neglected his own diagnosis and began to talk freely of his patients. He died eight years later of general paralysis.

I am always guarded in my prognosis when a strong, middle-aged man, not of a neurotic family, consults me for vague and variable nervous symptoms.

In such cases I insist on the danger there may be, and advise abstention from business, from domestic and social engagements. I often say that if men in this stage or condition could be made to treat their life like a piece of music, and keep fixed intervals of rest between the notes of action, they might stop the disease.

In a steadily progressive disease it is impossible to make clear distinctions between the stages; and it must be admitted that the *initial* stage is one about which authors differ. For my part I look upon the "initial stage" as equivalent to the

first noticed symptom, there being no break between its appearance and the recognition of a disordered or diseased state. The *initial* stage, or first symptom, may be *one act* or *one symptom*, or it may be a *group of symptoms* or *series of acts;* it may be *motor*, *sensory*, or *mental*.

Probably tremor of tongue, clipping of words, or some slight change in gait, are the most common initial symptoms. A convulsion may start the process. Change in feeling, possibly loss of power of smell, or local anæsthesia, or slight perversion of sight, such as colour-blindness, may occur.

On the mental side, emotional disturbances, passion, restlessness, lust, extravagance, and loss of memory are the most common heralds of disease.

Hypochondriasis may also be a first symptom.

There is nothing special either in the prodromal or in the initial symptoms of the disease, and there is no possibility of saying what will be the duration and course of the malady from the earlier symptoms, unless we except cases in which convulsions were the starting point, in which the prognosis is worse. Some patients who begin with excitement become melancholy, and more who are first depressed become excited. In one case, quiet dementia, which had lasted for eighteen months, was followed without warning by a most violent outbreak of maniacal excitement. As a rule, from the early symptoms one may judge whether the case will be one of so-called spinal or cerebral general paralysis, and again whether the disease will be of the tabetic or the lateral sclerotic type.

First stage.—The first stage of general paralysis of the insane is very variable, and I believe at present we have no means of judging of its probable duration. It may conveniently be taken to begin with the period when the disorder is such

that the question of special treatment is considered. This stage, having begun in any of the ways I have already described, may, in its turn, be a steady, progressive development of the initial symptoms, or a reaction from them; the case which begins in a worn-out man with weak-mindedness will probably continue to exhibit weakness of mind as the chief symptom. Speaking generally, in the first stage the most common of all conditions is that of mobility and changeableness.

If the patient after a short period of mental depression passes slowly or rapidly into a state of exaltation, the steps are probably the following: Recovering from his depression, he becomes restless and energetic, and passes into what I call the changing or reforming stage. He is not contented with his house or his business; he is irritable, and if opposed loses all self-control for a time; his constant restless and only half-completed plans distress and annoy those near him. He is often sleepless, or, at any rate, he gets up very early, and says he has found that hitherto he has slept too much. He is at times destructive, or, as he thinks, constructive, tearing up books to rearrange them. He may determine to change his profession, or he may seek out royalty or politicians to instruct them in their duties.

Telegraphing, sending endless postcards, and hiring cabs are common symptoms.

The purchase of useless articles in large numbers is also characteristic. A man who buys a dozen broughams and twenty parrots is probably a general paralytic. A patient in the early stage may determine to do some benevolent act, or may ruin himself as a champion of some craze. Any symptom which is met with in early stages of intoxication may be present: one man boasting of

his ancestors, a second of his strength, a third swearing friendship to a lackey, a fourth boasting of his amours and maundering sentimental ballads, while another is bathed in tears of sympathy, and others again are reduced to simple drunken folly.

The effect produced by drink may foreshadow what the same man would do when he is in the early stage of general paralysis. *Restlessness*, to my mind, is the most general symptom: one man never ceasing to walk as if for a perpetual walking match; another filling every piece of paper he can steal or borrow with badly-written letters; another violently playing any game he can get at; and others painting, singing, or talking without ceasing.

The *ideas of grandeur* so frequently exhibited in the disease at this stage find illustration in cases cited later.

The memory may fail a little in this stage, and the will is not firm, so that the patient is easily led; the association of ideas is good, as a rule. Hallucinations may occur; but I find it difficult to be sure of the number and variety of these as seen in general paralysis. Such a patient is glad to own that God talks to him, or that beautiful female angels appear to him; but I find that they rarely spontaneously talk of voices or of visions. Smell of pepper may be lost, as Voisin has said; but this is very rare in my experience, and is associated with other losses of sensibility.

There is rarely hyperæsthesia, while local anæsthesia, hypalgesia, and analgesia are more common.

There may be alteration in the tendon reflexes, usually in the direction of exaggeration, often with ankle and patella clonus. In some cases the knee-jerk is absent. The skin assumes one of

several aspects: it may be like that of the beer-drinker in excess, swollen, expressionless, and flabby, with a greasiness, especially on forehead, and about the *alæ nasi;* or it may resemble that of the spirit-drinker, being sallow, thin, dry, and with vascularity over the malar bones. In some cases a specially anæmic look is present, the patient having a tallowy aspect of a very special nature; yet I have failed to find any particular blood changes in such cases. The hair, which is generally abundant, may become grey.

Changes in the eyebrows and eyelashes have been described; a kind of weeping of the latter has been pointed out; but I do not think it is of much value.

The pupils are frequently unequal, and may be eccentric or irregular. Sight is rarely affected; and, in my experience, it is uncommon to find any changes in the optic discs; ptosis or strabismus is rare.

Next, as to the *organic functions.*

After the first, when the appetite may be small, and the tongue furred, the appetite is very good, and the patient accepts as the very best all that is given him.

His bowels are fairly regular; but there is, in some, constipation.

Sexual passion is strong; but power is often deficient. Sexual excess and masturbation are common.

The breathing and heart's action are normal, as a rule, though I have febrile pulse-tracings in some early cases with excitement. Sleep, which was not profound, becomes more and more deep and satisfactory. Pleasant dreams are common.

The bodily weight is rapidly increased.

The muscles are well nourished, and, save in spinal cases, the gait is good.

The muscles react normally to the electrical stimuli; in a few cases they are unduly excitable, or certain groups of muscles show some slight changes.

The tongue is tremulous, being put out uncertainly.

The handwriting is becoming shaky, and letters are being dropped.

The patient has lost his highest muscular powers, so that the musician fails with his fingers, and the *danseuse* with her feet. The actor plays false, and the clerk mis-spells.

The temperature may be normal, or, in certain cases, vary from 100° in the morning to 102° at night.

The urine is very variable in quantity and quality.

Second stage.—Into this the first stage may imperceptibly pass, or a fit may be the dividing mark. This fit may be of a very variable nature. In one patient a slight twitch is seen to pass over the face, pallor occurs, and in a minute the patient recovers, wondering what is the matter, and why others look at him. A simple attack of bilious vomiting may represent the fit, or there may be a series of fits of the most violent kind, keeping the patient unconscious and in a *status epilepticus* for days. The fits may be general, or may affect but one side; they may resemble ordinary epilepsy or apoplexy.

After recovery of consciousness there is a period of confusion, which may last a few days; but any hemiplegia is soon recovered from, thus distinguishing the fits from those of apoplexy.

After the fit a marked mental deterioration is noticed; often the patients become careless in their dress and gross in their appetites. The fits may kill at once, or may recur at irregular

intervals, generally following a similar course in each attack.

The fits may leave aphasia.

The memory fails, and though some cases appear to regain even their old ideas of grandeur, they are found to be much more manageable. In the second stage of confirmed general paralysis all the muscular and mental symptoms exhibit marked increase of weakness; and, as the first stage might be called one of loss of control, this may be said to be one of loss of power.

The most marked symptoms now are loss of facial expression; the naso-labial folds become obliterated; generally, not always, there is increase of tremor of lips and tongue. The speech is more hesitating; words like "artillery" are badly pronounced, and the voice may become changed and monotonous. The gait becomes more or less affected, and the restlessness is less. The appetite is good, but the food is often badly masticated, and may be swallowed with difficulty. At this stage there may appear some peculiar habits, such as that of constantly swallowing, or of movements of the lower jaw; and grinding of the teeth may also show itself. This last symptom is a very common one, and may go on for months, in some cases the teeth being worn down or even broken off. Common sensibility is often lost, the changes in the reflexes are more marked, the pupils are more constantly unequal, their reactions change (*see* pp. 353-55), and some changes may be visible in the discs; these are simple hyperæmia or tendency to atrophy. The patient may have a complete remission for a time, or may improve to a great extent.

In some cases the whole character of the disease changes: one patient, who had before been obstinate and hypochondriacal, becoming, after a

fit, fat and jolly, and another becoming deeply emotional or melancholic.

Skin changes may also occur, so that a patient may have livid extremities, or may develop hæmatomata of the ears.

Hallucinations are rare, and the delusion of grandeur is less insisted upon; the emotional side is less stable, and the memory failing. This description is only a typical one, for each case has some peculiarity of its own. I have known patients appear for a day or two to recover their mental and physical powers to a surprising extent.

In this stage there may be a tendency to subcutaneous bruising, and to the formation of large abscesses or whitlows, which are found to contain broken-down blood and not healthy pus; and the inflammation associated with the condition is of a low type, and causes little pain. Nevertheless, blood-poisoning and sudden death may occur.

The patient may remain in this stage for any time from a month to several years. He may become fat and flabby, or he may waste rapidly: in the former case fits will probably return; and in the latter some secondary lung affection may hasten the end.

Third stage.—Loss of control of the rectum and bladder mark this stage; at first, only as a rare accident, or only while in bed; but later all control is lost; all the bodily and mental symptoms become accentuated. The patient also now loses strength, sits about unoccupied and demented; being unable to walk or unsteady in his gait.

He may get wasting and contraction of the limbs, bed-sores rapidly forming. These latter, however, often show a strange power of repair. Swallowing becomes difficult and dangerous, the tremulous tongue can hardly be protruded, and speech is thick and indistinct.

Grinding of the teeth is very common.

Loss of sensibility, blindness, and deafness may be present; the bones may become brittle, so that a very slight injury may break a rib or a limb.

The fits probably become more frequent, and are associated with increase of temperature and profuse sweating, which may be local or general. The temperature may, in some cases, be subnormal apart from the fits.

The end may be due to a series of fits, to lung complications, such as pneumonia, to simple exhaustion due to bed-sores or to want of power to assimilate food; accidents, such as choking or blood-poisoning, may also occur.

Besides the above there are *cases starting with hypochondriasis* passing into melancholia with refusal of food and general obstinacy, diagnosis being doubtful for some time, as the patient will neither walk, speak, nor write; the pupils may be unequal, and the skin greasy. In many cases a fit may clear up the case, and when it has passed into the second stage it runs the usual course. I have known several pass from a rather prolonged first melancholic stage into a long stage of happy, fat weak-mindedness, to be followed by fits, loss of power, and death.

In *cases starting from simple weakness of mind*, the symptoms vary a great deal, one suffering chiefly from loss of memory, while another becomes querulous or nervous. The bodily symptoms resemble those already described, and the cases pass through similar stages.

I have seen good examples of *general paralysis of the "double form,"* the point that has struck me in all being the extreme differences seen in the two stages. So much has this been the

case that in each I have doubted whether my diagnosis had been formed correctly. Thus, a patient admitted with typical symptoms of general paralysis passes into a state of simple melancholia, most of his other bodily and mental symptoms having remitted; this having lasted for some time, a fresh outbreak of violence and exaltation again confirms one's first opinion, and this may again be succeeded by melancholia; each attack, however, leaves some mental scars to prove its real nature.

Some cases terminate early from complications, others pass rapidly through the ordinary stages, and others are specially severe.

Rapidly fatal general paralysis.—E. G., married, æt. 33, grandfather melancholy, parents healthy; the supposed cause of this attack was anxiety about money matters. There was a history of a previous attack of insanity, seven years before, from which the patient completely recovered. This attack lasted fourteen days, and began with hesitation in speech, with great incoherence, sleeplessness, and refusal to take food. He fancied that his shop assistants were being starved, and that people were removing his goods without payment. On examination when admitted he was found to be weak, nervous, and restlessly excitable. Within three months he was noticed to be very feeble on his legs, and it was difficult to understand him, as his speech was so thick; later, he had a convulsive fit, from which he recovered, but remained in a half-dazed condition. There was no special paralysis, but great exaggeration in the reflexes. Four months after admission he was found one morning in an unconscious state, head turned to the right, with conjugate deviation of eyeballs also to the right, and pulse 170, respiration 55, temperature 105°, right pupil

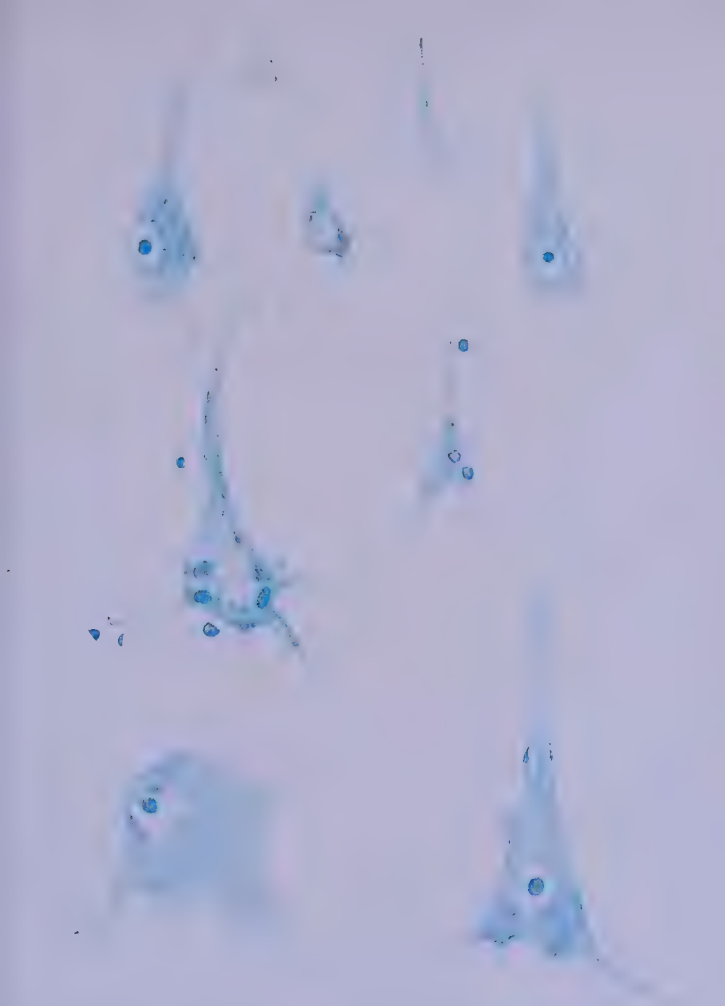

PLATE III.—PYRAMIDAL CELLS AND BETZ CELLS FROM A CASE OF G.P.I.

The chromophile granules have to a large extent disappeared, portions of the cell substance which normally do not stain have taken on the stain, the contour of the cell is in some instances altered, and the cell processes are deficient. In the case of the right hand central cell two cells of the connective tissue occupy the place of former cell-substance. Stained with polychrome methylene blue. × 330.

slightly larger than left, loss of power of rectum and bladder; the breathing assumed the Cheyne-Stokes character; he became more profoundly unconscious, and died. *Post-mortem:* the convolutions of right side of hemisphere gave the idea of being wasted from compression due to a large false membrane, in which a soft clot had formed; the pia mater peeled off readily, the brain weighed 43½ oz., and beyond pleuritic adhesions on both sides of the chest, there was nothing noteworthy found in the body. On microscopic examination there was found great excess of connective tissue in both brain and cord, this being widely diffused, and having a semi-transparent gelatinous aspect unlike that found in more chronic cases.

In this case the peculiarities were insane inheritance and a previous attack of insanity; but the point to which I desire to draw attention in quoting the case is the rapidity with which, when once the disease became fairly started, it ran its course. The symptoms were rather melancholic than maniacal; but I have seen many cases in which all the ordinary symptoms of general paralysis have been present, and in which the patient has died within three months. This, in my experience, is more common with maniacal cases than with either those suffering from melancholic symptoms, or those of simple weak-mindedness.

Acute general paralysis of the insane. Fatal result.—Louis F. G., married, æt. 50, artist; no history of insanity in the family, no previous attack of insanity, although he had suffered from pleurisy with delirium two years before; said to have been steady in his habits, cheerful, and intelligent. Two months before admission he was noticed to be irritable, nervous, and depressed. He lost power to do really good artistic work, and forgot to complete orders he had on hand. He went from

London to Paris, and was unconscious of difference between the two cities. On his return his bodily health was seen to be failing; he was sleeping badly and his appetite decreasing. There seemed to be difficulty in swallowing; he was clean in his habits, and had no extravagance in his ideas. He mistook himself, and when he saw his image in the glass wished to smash it. He was suspicious, violent, and obstinate about his food. The diagnosis was general paralysis in an early stage. Within a fortnight of admission he was so weak as to be obliged to be kept in bed. Bed-sores rapidly developed, and he died within six weeks. The above example is a fair one of what is met with every year, some cases running even a more rapid course, and being complicated by convulsive fits. In this case no *post-mortem* was allowed to confirm the diagnosis.

Example of chronic case of general paralysis with severe convulsions recurring during the greater part of the disease, and death at the end of nine years.—George E. S., married, æt. 43, butler, admitted for the first time into Bethlem in 1866; no insane inheritance. This was the second attack of acute mental disorder, there having been a distinct remission between the first and second. On admission he was talking incoherently, was dangerous to others, filthy in his habits, and childish in his general behaviour.

Although on the first admission there was some doubt as to the nature of the disease from which he was suffering, on his second admission the loss of muscular co-ordination was very distinct, lips tremulous, and gait unsteady. Incidentally, he had an attack of erysipelas, which in no way affected the course of the disease. Steadily the symptoms of general paralysis progressed, and two years after his second admission he was described

as thin, much paralysed generally, speech not to be understood, some contraction of right arm and leg, and reflex action exaggerated. He suffered at irregular intervals from fits. During the next three years fits became rather fewer in number, but were extremely severe, lasting sometimes two or three days. He became helpless and bed-ridden, gradually lost sensibility, and, his breathing becoming implicated, he died, after nine years of disease. *Post-mortem:* brain found much wasted, dura mater adherent throughout, arachnoid with many milky spots, great excess of subarachnoid fluid, pia mater separable from cortex, several convolutions markedly wasted, especially the left ascending parietal and frontal, considerable wasting in the right side posterior to the fissure of Rolando, vessels at base atheromatous, cord wasted, other viscera natural.

In this case there were symptoms of general paralysis occurring nine years before death; there was a distinct interval of partial health, during which he was able to live at home. With the readmission, there ceased to be any doubt as to the nature of the disease, which was marked by progressive dementia, numerous epileptiform fits, and ultimately death. The brain showed special wasting along the motor area, corresponding with the right-sided palsy.

Example of ordinary case of general paralysis in a man.—Clarence E., married, æt. 37, wine merchant, admitted November, 1872; no insane relations, not very sober habits. This was his first attack of insanity, and anxiety was supposed to have been the cause; but it seems that he had been unstable and restless all his adult life, having been first a medical student, then a surveyor, later connected with some irregular troops in New Zealand, and, last of all, wine merchant. There

was said to have been an injury to the head, but intemperance, at all events for a time, was undoubted. He had a fit of some kind in New Zealand, and this, probably, was the starting-point of the disease. On admission he was a typical example of mania with exaltation. He said he was the eldest son of God, that he was formerly a great duke, and had unbounded wealth; he was liberal and benevolent in the extreme. He told me, with regret, that the patients denied that he was either king or archbishop, and even denied his divinity; that he slept from twenty to sixty hours a night. Occasionally he would say that he had lost all his delusions, but it only required a minute's conversation to get evidence of their persistence. In his case was well shown the inability to appreciate facts, so common in these cases; for although he would boast of being able to make enormous breaks at billiards, he was not in the slightest degree disconcerted by being beaten by a tyro. He lost strength and flesh rather rapidly during the first few months after his admission, there being great increase of tremulousness of his facial and lingual muscles. He walked restlessly and quickly about the grounds for hours together, and when not walking was writing endless letters and dispatches to great people. His memory next became markedly affected, and his sense of colour seemed changed, so that when he took to painting he produced the most astonishing effects. Six months after admission his speech, for a few days, became greatly affected, and at the same time there was loss of power in his extremities, but there were no distinct convulsions. He recovered from this, and ate and slept well, becoming contented and less boastful. He complained of spermatorrhœa.

In the autumn of 1873 he had a slight attack

of pneumonia, from which he recovered. During the year 1874 he was in much better health, and even worked in the gardens. His hand-writing, however, became characteristically shaky, and early in 1875 his aspect became dull and expressionless. He was unsteady in his gait, and on several occasions fell, bruising himself. His muscles were fairly well developed, his memory was progressively failing, he was easily moved to tears; the average bodily temperature was 98·4° in the morning and 100° at night; loss of control over bladder and rectum appeared, with great loss of sensibility. In May, 1875, there was evidence of a convulsive fit during the night; but he recovered from this, and for another month gained flesh. In 1876 the patient was fat, flabby, and demented. He was unable to stand, and the reflexes were so exaggerated that on several occasions he was nearly jerked from his chair by them. His appetite was good, his lower limbs somewhat contracted, the right pupil larger; he laughed senselessly if spoken to, and resisted any interference. He was threatened with bed-sores, which were prevented by keeping him sitting in suitable chairs, and not allowing him to lie in bed by day.

In November, 1876, the patient had a severe convulsive seizure, affecting the right side, and was unconscious, but restless. He recovered from this fit, but was, in every way, weaker, his lower limbs becoming more contracted; he ground his teeth constantly, making a most terrible noise. During the next two years, as long as he lived, he never regained consciousness. The optic discs were pale and atrophied, but he was able to see to a certain extent, and also to hear. For months he remained in bed, his limbs becoming drawn up. In August of the same year he had another

fit, the fit having been preceded by a condition of extreme irritability as far as reflexes were concerned. The head was drawn to the right side, the right pupil larger; there were clonic spasms of lower jaw and occipital and frontalis muscles. He recovered from this fit, and lived on till March, 1878, when he died, worn out. *Post-mortem:* the body was greatly emaciated, with rigid flexion of both hips and knees; dura mater adherent, arachnoid thick and very opaque; great excess of fluid, so that the brain was softened and watery; cord and brain both much wasted; brain weighed 38 oz.; much atheroma of the vessels at the base of the skull; signs of old inflammation of both lungs; wasting of kidneys, and liver nut-meggy.

This case will be seen to exhibit all the chief characteristics of the disease we are considering, but was unusually long in its course.

Example of ordinary case of general paralysis in a woman.—Mary A., married, æt. 36, formerly an actress, no insane relations; present attack the first; supposed cause, great anxiety and money troubles of her husband. The first symptoms showed themselves nine months before admission to Bethlem. She became excited and incoherent for twenty-four hours, and from that time there was marked evidence of mental weakness. This progressed till it was found necessary to send her to Bethlem. On admission she is described as having a vacant expression, but that she was always wanting to be dressed elaborately, thinking herself to be a great personage. When spoken to she invariably replied by saying "Jolly." She walked awkwardly; her speech was hesitating, and her comprehension dull; her expression was vacant; her appetite was good; there was loss of power over bladder and rectum; within one month

of admission she became noisy, violent, destructive, refused to take food, and had to be fed with the stomach pump. An erythematous rash, followed by large bullæ, appeared on the legs; the temperature was subnormal. She steadily lost strength and died. *Post-mortem* showed some adhesions of dura mater of the skull, arachnoid slightly milky, excess of subarachnoid fluid; brain weighed 33 oz.; marked flattening of first and second frontal convolutions, and over the whole of the left vertex; membranes, when separated, left roughened cortex; arteries not atheromatous; excess of fluid in both lateral ventricles; cord wasted, but firm; lungs both congested, with adhesions of both pleuræ; kidneys small, somewhat granular; small fibroid tumour on wall of the uterus.

General paralysis in a woman; exaltation.—This is interesting from the fact that it occurred in a childless woman who had indulged in sexual excess, and had also suffered from a previous attack of insanity, and from the fact that there was great exaggeration of ideas. Charlotte H., married, æt. 42, no insane relations; had a first attack of insanity in 1872, when she accused her servant of drunkenness and theft, refused to pay tolls or cab fares, and squandered her money in useless ways, pawning her jewellery to obtain funds. She believed herself to be pregnant; she always impressed upon us the fact that she was going to be delivered of triplets. After nine months' treatment she was discharged to go home to her husband, it being noted that she had settled down into chronic weak-mindedness of general paralysis, but that she was able to do her household work. She remained at home till January, 1875, when she was readmitted with the history that, three months before there had been a marked

exaggeration of her symptoms, her memory becoming worse, and her extravagance reappearing. Her memory was extremely defective, for both recent and past events, so that she would get up in the night, with the idea that it was morning, to prepare her husband's breakfast. She was destructive, tearing up her clothes; was markedly tremulous in her speech; her walk was unstable; she was unable to thread a needle or to direct any precise movement. The right pupil was the smaller; eccentric, and reacting but slightly. Up to a period of three months before her readmission she had been excessively amorous, but of late all desire had ceased. The appetite was good, and she slept well. From the time of her admission to the time of her death, in February, 1876, she steadily lost ground, bodily and mentally, dying in the end with bed-sores and pneumonia, the bodily temperature being 150°. *Post-mortem:* dura mater adherent, pia-arachnoid free, with large excess of fluid; convolutions much wasted, especially on left side posteriorly, and about the fissure of Rolando a few adhesions were scattered; brain was tough on section; no excess of fluid in ventricles; cord wasted; lungs small, fibroid; kidneys wasted, with adherent capsules.

General paralysis with a period of complete remission; death from hæmorrhage into spine.— In the next case, an attack of maniacal excitement caused the admission of the patient into Bethlem two years before he was finally admitted, suffering from rather advanced general paralysis, from which he died. Henry J. C., single, age 29, had one sister insane. Cause of present attack unknown; had been a commercial traveller, had drunk a good deal, and worked very hard. His first symptoms appeared in August, 1873, when he began to mope, and felt unable to do his work. He ate

well, but slept badly. After the period of depression he became emotional and excitable, irritable and threatening. He also became extravagant and generous; his sleep became profound; he is said to have indulged sexually to a great extent; he believed himself to be Christ. On admission he was very maniacal, dirty, destructive, and dangerous. Bromide of potassium and cannabis indica were given with little effect. Morphia also failed to keep him quiet. An abscess formed in one leg, from which grumous, unhealthy-looking pus was discharged, and it was with difficulty this was healed. Various narcotics and sedatives were tried, but seemed to have little or no effect till the period of excitement passed off of its own accord, after a severe attack of purging and vomiting. In July, 1874, he was reported as convalescing. In September, 1874, he was sent on leave; the leave was extended till November, when he was discharged; but I had my doubts about his recovery being complete, as he could not recognise the fact that he had been excessively violent and dangerous. He was readmitted in September, 1876, with a history that he had been energetically at work for a year, but that suddenly he had become extravagant, restless, and possessed with ideas of grandeur. On admission it was noticed that his speech was greatly affected, and there was no longer any doubt as to the nature of his disorder. He talked freely of his millions, was grand, benevolent, and demonstrative, with marked erotic tendencies.

At the beginning of 1877 the patient lost strength and flesh, but no physical disease could be detected. Early in February of the same year he wetted his bed, and had an epileptic fit, marked by half-opened eyelids, twitching of the eyelids and lip muscles, inversion of right thumb, clonic

convulsion of hands and feet, pupils minute, right the larger, temperature 98°. In the evening of the same day the fits returned, affecting both extremities, breathing rapid, skin sweating, temperature 108·5°. The patient then died. *Post-mortem:* brain was found to be of full size, 49½ oz., with no special changes beyond excess of subarachnoid fluid; vessels at the base atheromatous; other viscera fairly healthy with exception of the cord. On opening the spinal column blood of a dark colour escaped from the meninges. On tracing this upward it was found connected with a large clot surrounding the cervical region, so that the high temperature and the sudden termination of the case depended upon a rupture of an atheromatous artery into the duma mater of the cord.

Case of a young single girl.—The following is a young case, in some respects similar to the last, being single, and belonging to a nervous family, and being much below the average age. E. W., single, æt. 24, an actress, mother given to drink, and other relations exhibited in minor ways neurotic tendencies. This was the first attack, and was attributed to love disappointment, the truth being she had been seduced and abandoned. The first symptoms commenced seven months before admission; change of temper was noticed, she became tremulous and jerky in movement, and fancied that her sister treated her badly. On admission she was restless, excited, and sleepless; she said she had seen Christ appear to her, and that he had given her a new skin. She wanted to squander money, and she claimed high connexions. The pupils were unequal, the left being the larger of the two, tongue tremulous, speech hesitating, very emotional, and with varying forms of exaltation, so that at one time she would claim twenty husbands, and at another would say she possessed

boundless wealth, especially in jewels and dress. Her bodily health improved, and for a time she was amiable and quiet, but the bodily weakness and tremor were marked. The temperature during this time varied from 98·6° to 99·6°, and I may say that the night temperature was generally maintained during January, 1881, at 100·2°. It was seen that her highest acquirements became most affected, so that, though she believed she could still dance and recite, her attempts were feeble in the extreme.

During February, 1881, she was reported to have been at times depressed, and complained of headache. She pulled out her hair and rubbed holes in her forehead; the tremor of hands was more marked, patellar reflex much increased; the urine contained neither albumen nor sugar. During the autumn of the same year she had improved sufficiently to be allowed to go to the theatre with a sister; she recognised several people whom she met there, and spoke connectedly about the past. In November her eyes were carefully examined and reported to be normal, with the exception of haziness of the lenses. During the first few months of 1882 she remained in much the same condition, although her mind seemed to be slowly getting weaker. In May, 1882, the catamenia reappeared for the first time for two years, without the slightest mental change. During the rest of the year she lost in weight and became quite unable to stand, attempts made by herself resulting in falls and bruises. In the summer of 1883 she began to grind her teeth constantly, and gradually loosened nearly the whole set. Further physical weakness developed, and by August she was bed-ridden, unable to swallow solid food, legs contracted, with slight twitchings of muscles. There were no marked convulsive fits, but during

the course of the disease there had been several attacks of loss of consciousness representing the same condition. She sank slowly and died. *Post-mortem:* the brain weighed 36½ oz.; great excess of subarachnoid fluid and of fluid in the ventricles; much wasting generally of the convolutions; brain substance soft, and almost universal adhesions of membranes to cortex; both kidneys in a condition of extreme cystic degeneration, with very little secreting structure left; the rest of the viscera were sufficiently healthy.

In this case a single woman of twenty-four years of age developed general paralysis, which was somewhat long in its course, but presented the various mental and bodily symptoms met with in the disease; and although sexual excess may at some time have been indulged in, it certainly had not been for some time before admission, and the lapse from virtue had been of short duration. One other point was the recurrence of menstruation after an absence of two years. I have met with two or three female cases of general paralysis in which the menstruation has been maintained throughout; but in this case I was surprised to find a re-establishment without any special physical change or mental improvement.

General paralysis in a young single woman, with acute course.—This case is that of a single woman, æt. 27, machinist, maternal uncle insane, sister died of phthisis; first attack of insanity, supposed cause being the removal of a tumour under chloroform seven or eight weeks before admission. Several slight epileptiform fits came on, and were followed by great hesitation in speech, loss of memory, senseless laughter, and loss of power of lower extremities. On admission, in 1883, she was reported to be suffering from an ichthyotic condition of skin, her tongue and lips

were tremulous, marked hesitation in speech, the reflexes normal. She had hallucinations of hearing, and was emotional. Although there was no marked exaltation, yet she would always say, however feeble she might be in gait, that she was "all right." Later, she was constantly yawning, the reflexes became exaggerated, the right pupil the larger; she became restless, dirty, and destructive, so that she had to be sent into another ward. By the end of January, 1884, diarrhœa came on, she was bed-ridden, and she rapidly sank. Thus her case was acute and typical, although occurring in a single young woman.

General paralysis in a woman, following worry. —M. M., single, æt. 53, schoolmistress, admitted July, 1879, no insane relations; first attack of insanity, said to be due to over-work and anxiety; it is certain that she had had a very great deal of worry and pecuniary trouble for a year or more before she broke down. She was said to have had convulsions before the change in her disposition took place, there being doubt as to whether they were epileptic. On admission she had many delusions; she thought she was being poisoned, and that she and those about her were dead; she was obstinate about her food, and was negligent of personal cleanliness; she had hallucinations of sight and hearing by day and night; she feared debt, and said she would sooner die than owe. Within one week of her admission she was served with a writ, and this caused a great deal of mental disturbance; she remained excited for some days, and had to be put in a padded room. In August she was reported to have been feeble in memory; the hallucinations of hearing were very marked, the patient alleging that she had heard conversations between the doctors and her enemies.

At the end of August she had a fit, in which both sides were convulsed, but there was no coma nor paralysis; she remained for a time dazed, but on the fourth day became maniacal and violent, and continued so nearly a week. After the excitement there were signs of physical weakness, and her mind and memory were very feeble, so that she had to remain in bed. In the middle of October she had another fit, being excited after it; the excitement was followed by right hemiplegia, and speech and memory were very defective. In December and January she had other fits at irregular intervals, the peculiarity of these fits being that after a short, sharp set of convulsions the patient was quiet for an hour or two, then became maniacal. During this period she showed few signs of paralysis of the right side, although her speech was still thick. After a few days of excitement she became quiet and remained in her bed, suffering from right hemiplegia. There was no material change till the 28th of March, when she was more sensible than usual, recognised the doctor, and said it was "blessed Easter-tide." After dinner she was seized with convulsions of the left arm and leg, head drawn to left shoulder; the fits were clonic, lasting from a few seconds to several minutes. The eye-balls turned first to the right and then to the left; no increase of temperature at first, although the next day the left half of the body was two degrees in excess of the right. *Post-mortem:* adhesions of membranes, especially in first and second frontals, ascending frontal, and parietal, left side; in right, adhesion first frontal and ascending frontal; brain 46 oz.; heart $13\frac{1}{2}$ oz.; kidneys small, wasted.

General paralysis in a woman. Pachymeningitis.—A. B., married, æt. 50; one sister died of puerperal insanity, another of delirium tremens.

This patient had had no previous attack of insanity, and the present cause is supposed to have been anxiety about her husband's business matters, two years previously. This illness began with sleeplessness and depression six months before admission; she then became weak-minded and forgetful, at times talked incessantly, at other times was restless and irritable, talking in the wildest way of her being connected with the Royal Family. On admission, July 31, 1883, she refused food and had to be fed with a stomach pump; she constantly pulled off her clothes; her speech was thick, tongue and lips tremulous, right pupil the larger, patellar reflex well marked, considerable exaltation of ideas, especially about money; she became very feeble on her legs, her articulation became worse, and memory for present things defective. On the 24th of October of the same year she had a series of convulsive fits, from which she rallied a little; but her breathing becoming implicated, she sank and died on the 3rd of November. In this case, *post mortem*, was found great wasting of some convolutions, especially about the junction of parietal with occipital regions on both sides; there was also pachymeningitis on the left side, with general wasting of both frontal regions. The rest of the body was not examined.

Though the woman's age was only 50, her appearance was that of at least 60; the symptoms were very characteristic, there being progressive weak-mindedness, exaltation of ideas, restless destructiveness, associated with lingual and labial tremor, loss of power, convulsions, and death.

General paralysis in an old man. Pachymeningitis.—S. B., æt. 61, but with the aspect of a man of 70, married, an artist, no insane relations; no previous attack of insanity, the present one dating back six months, supposed to be due to

pecuniary losses, showing itself with forgetfulness of small things; he became incoherent and childish, losing himself in his own house, mistaking his relations, and neglecting the decencies of society, was restless and fidgety, rubbing his head with his hands. On admission, November 22nd, 1883, there was great tremulousness of lips and tongue, with hesitation of speech. After admission he became more restless and interfering, and at the same time he lost mental power. A month after admission he had a series of convulsive seizures, from which he again recovered, but he was left distinctly weaker in mind after the convulsions. At the end of January he had a further series of fits, from which again he recovered. Mental and physical weakness increased, and he died, pachymeningitis being found *post mortem*.

The above case is a good example of the difficulty which may arise in distinguishing between senile weak-mindedness and general paralysis of the insane, and the diagnosis can scarcely be considered complete till the *post-mortem* examination. My opinion that it was general paralysis was founded upon the progressive weak-mindedness, restlessness, tremulousness of tongue with hesitation of speech, together with the recurring convulsive seizures which left no permanent paralysis.

General paralysis with simple progressive dementia.—As I have said, the natural mental termination of general paralysis is weak-mindedness, but in some cases this is developed without any intermediate stages of excitement or depression. This may follow in cases beginning with convulsions, or it may occur in cases such as that about to be described, without any definite explanation. The weak-mindedness may shew itself as simple loss of memory, as loss of power to accommodate oneself to one's surround-

ings, or as a childish emotional condition, or as one of boyish frolicsomeness, or as cowardice.

Recent writers comment on the frequency of occurrence of the demented type of the disease, and consider, in fact, that this type is now the most common.

The following case of general paralysis with simple progressive dementia is a fair example. E. M., married, æt. 46, merchant; no insane relations, mother died paralysed, one brother died of apoplexy. This was the first attack, the cause being great money losses and anxiety about his family. He had always been temperate and hard-working. He had, as his first sign of mental degeneration, a convulsive seizure two and a half years before he was considered insane. His present illness began with incoherence and confusion of thought and speech; he was unable to enter into any rational conversation, and had a vacant expression of face. On admission, September, 1880, he was stout and expressionless, with feeble power of reaction and negligent of his personal appearance. His optic discs were found to be in a state of grey atrophy. The reflexes were exaggerated, and nearly all the muscles, both of face and limbs, were found to be unduly irritable to the electric current. Bodily this patient improved, so that he became more than one stone heavier in seven months, but mentally he grew weaker; the right pupil was larger than the left, and reacted to accommodation, but not to light. There was great tremor of facial muscles and hesitation in speech.

This patient exhibited a mental peculiarity which is not uncommonly seen in general paralytics, so that there was a temporary and limited re-establishment of the intellect; and although he got progressively weaker in mind, he occasion-

ally brightened up and recognised his friends and relations, and could even understand his position as a patient in an asylum. Such periods of remission are not uncommonly followed by convulsions or exaggeration of mental weakness. By February, 1883, the patient became greatly emaciated, and there was contraction of his neck and lower extremities. He spent most of his time in an unconscious state. At the end of February he had a severe series of epileptiform fits and died. *Post-mortem:* the brain weighed 44 oz.; great excess of fluid in membranes and in ventricles; adhesions of membranes to cortex; on both frontal convolutions and on the right frontal lobe there was considerable wasting; the arteries at base atheromatous; the aorta extremely atheromatous; both kidneys peeled badly, the rest of the viscera were normal, except that the lungs were œdematous.

General paralysis with melancholic symptoms.—A great deal has been written, more especially by Voisin, on the subject of general paralysis with hypochondriacal and melancholic symptoms, and I think he deserves credit for pointing out the number of patients who die from this variety of the disease without showing most of the more usual symptoms accompanying it. I find that the general practitioner looks upon exaltation of ideas and the inequality of pupils as the two pathognomonic signs of general paralysis; but asylum physicians must all have been struck with the cases which are admitted into an asylum obstinately refusing food, losing flesh, and causing anxiety from their feebleness, and in the end dying. Some such cases, with care and by means of artificial feeding, rapidly improve, and the physician looks for recovery; but, instead of that, the patient, becoming fat, also becomes weak-

minded. It is then, perhaps, noticed that there is inequality of pupils, tottering gait, and marked loss of expression. There has been difficulty from the very onset to get the patient to put his tongue out or to speak; hence the condition of tremor has not been noticed. In such an instance, if fits occur, the case is cleared up; but if not, it must be looked upon as one of dementia consecutive to melancholia. In all these cases death results, and both doctor and friends are astonished at the fatal result. In some cases there are no remissions, melancholy passing into extreme physical weakness or death, the whole period of the process lasting but a few months.

In looking over the records of the deaths of patients in Bethlem, I meet with many that I am now sure belonged to the class of melancholia with general paralysis which were not then recognised as such, although I used to point out that a certain number of melancholic patients always died, and without what appeared to be sufficient pathological cause. The subjoined case is a typical one of the kind. John C., admitted January, 1874, married, æt. 47, merchant, no insane relations; first attack of insanity, which had lasted six weeks, caused by loss of money and anxiety, and began with the loss of identity. He refused to take food, because he believed he could not afford it, and also because he thought people were trying to poison him. After admission he was reported as silent and obstinate, refusing his food, negligent of his person, and sleepless. He had to be fed artificially. There was a history of a convulsive seizure during the early part of his illness. He slowly lost strength, but remained perverse and melancholy. I was unable to discover any cause for his physical deterioration and for the difficulty in breathing which came on. He sank

and died in March the same year. *Post-mortem:* brain 50 oz.; dura mater adherent; somewhat thickened arachnoid with many opaque patches; subarachnoid fluid in great excess; considerable wasting of convolutions, the right frontal lobes being most reduced; vessels at base atheromatous; brain matter fairly firm; the only other changes, found in the lungs, were due to pneumonia. Similar cases have occurred in which convulsions reappeared, or in which other bodily symptoms had made themselves manifest.

General paralysis with little tongue tremor.—In the opinion of one or two of the oldest physicians in our speciality, tremulousness of tongue and hesitation in speech are the invariable symptoms of general paralysis; but I would at once give it as my opinion that, whilst usual, they are not invariable. These states constitute an example of the general principle that the most highly developed faculties suffer soonest. Speech, with all the delicate control of the tongue, is one of the later human acquirements, and in any condition of progressive mental degeneration will suffer as a rule; but there will be exceptions, which at present are not to be explained, and I am quite used to meeting patients suffering undoubtedly from general paralysis, yet with little or no tremor or hesitation. The following is a very good example:—

Thomas A., married, æt. 43, ironmonger, paternal grandfather and maternal cousin insane, phthisis present on the paternal side. His first attack of insanity, which had lasted three months, could not be attributed to any definite cause. It began by great irritability and extravagance, with sleeplessness, and ideas that he was possessed of immense wealth and power: that he had received revelations from God, and that he was

married to most of the duchesses in England. Both pupils were contracted, but reacted to light and accommodation; tongue clean, moist, and very slightly, if at all, tremulous; his walk was ataxic; the reflexes normal; his hand-writing shaky and abbreviated, but his speech as clear as possible, and his facial muscles without loss of expression. This case, after being five months under observation, convinced me that he was suffering from general paralysis, and yet there was no marked change in expression of face, nor was there hesitation in speech.

SPINAL CORD CHANGES IN GENERAL PARALYSIS.

There is a group of cases in which either the paralytic symptoms precede the mental symptoms or are very much more pronounced. In cases already reported it will have been remarked that most of those which terminated fatally exhibited paralysis of the lower extremities more or less; and I believe the process of degeneration is one affecting the whole of the nervous tissues, and, therefore, sure to implicate the spinal cord, if the disease lasts long enough. Another question, which at present I am not in a position to discuss, has been referred to by Dr. Mickle. Since Ferrier elaborated his ideas on the localisation of function in the cortex of the brain, observers of general paralysis of the insane have sought to localise degenerations, representing the special lines of weakness met with in these cases. It would be of some importance to be able to say of the patient with general paralysis associated with tabes, that degeneration would be found in such and such a part of the motor area; or that, if the case be one with changes in the lateral columns, another part of the cortex would be affected. That this will be demonstrated sooner or later I feel sure.

The following cases are examples, firstly, of general paralysis associated with ataxic symptoms; secondly, of those in whom the symptoms pointed to a change in the lateral columns, which *post-mortem* examination confirmed. The first group may again be divided into those in which ataxy preceded and those in which it developed with or after the general paralysis.

1. General paralysis associated with ataxic symptoms.—The first case is an example of ataxy preceding general paralysis, which exemplifies very well the progressive nature of the degeneration; the patient not only had typical ataxy, but became both blind and deaf, and showed symptoms of bulbar paralysis. R. M., married, æt. 47, merchant, no insane relations, mother died asthmatic. No known cause for the illness; the first symptoms showed themselves at the end of 1877, when he refused to see people and threatened to drown himself. He had increasing difficulty in expressing his ideas, became altered in manner, his memory failed, and even then he had a habit of letting his saliva run from his mouth. Before admission he became reckless in business and emotional, especially at night, when he would bellow for hours together. On admission he thought everyone was against him, he refused food, had exaltation of ideas, thickness of speech, and ataxic walk, which had been present some year or more; there was some nystagmus. Two months after admission he was reported to be more shaky on his legs and the optic discs to be partly atrophied; later he had a slight attack of faintness, followed by slight loss of power in left thigh; patellar reflex was absent. At the end of 1878 both discs were described as markedly atrophic, and deafness was also noted. Although feeble, he was restless, constantly trying to move rapidly about. In

November he had a fit, and from that time lost power rapidly. After the fit he was reported to be unconscious, the tongue dry and brown, pulse 74, axillary temperature 98°, surface temperature of forehead—right side 93·8°, left 94·6°; there was twitching of the right side, inability to swallow, left pupil larger, both pupils being insensible to light. The patient died, the brain exhibiting wasting with some adhesions, the cord showing evidences of changes in the posterior columns.

In the next case symptoms of rapid general paralysis and ataxy developed together. Thomas J. B., married, æt. 51, clerk, no insane relations; first attack of insanity, supposed to depend on intemperance, although he had been temperate for the last two years. A slight attack of depression, lasting one week, occurred two years before, at the time he became teetotal. He had two severe falls, but there were no signs of local head injury. The first symptoms of this attack occurred three weeks before his admission, on September 21st, 1883, when he became strange in manner, unable to attend to his business, sleepless, with exaltation of ideas, believing himself to be a very great man, able to compose poetry and to paint pictures fit at least for the Academy. He said his father was the son of a nobleman. He was restless, boastful, and encroaching, constantly moving rapidly about, and willing to race or fight with any of the patients; pupils small, but equal; memory for recent events bad; walk unsteady, legs being thrown away from the body and falling on the heels; patellar reflexes absent; said he did not feel the ground; on closing his eyes he reeled and fell at once. There was but little tremor about the lips, and slight irregularity or hesitation in speech. He continued happy and contented with his powers, making

many pictures and filling reams of paper. On September 28th it was reported that there was divergence of eyes and consequent diplopia, on account of which he kept his right eyelid closed. There was marked cerebral giddiness when left eye was closed, no evident changes visible in his discs. From September both bodily and mental weakness steadily progressed, and the case became a marked one of general paralysis in an advancing stage, with ataxic symptoms. I have never met with a female case of general paralysis in which ataxy was marked; the same rule seeming to hold with this as with ordinary ataxy, that women rarely if ever suffer.

2. Lateral sclerosis of cord with general paralysis.—This class of cases is one in which I have taken very special interest, the symptoms in many particulars grouping themselves regularly, so that I am hopeful at all events that this variety of general paralysis will prove to be not a mere formal division, but a natural class. The first important peculiarities which I have encountered are that it frequently occurs in women as well as in men; that it occurs in the single as well as in the married; and in patients much younger than the average age for general paralysis. In a certain number of the cases I have met there has been an undoubted history of syphilis. On the bodily side the walk is peculiar and spasmodic, giving one the idea that no sooner has the foot touched the ground than a reflex is immediately started, causing the foot to jump suddenly up; the reflexes are exaggerated, clonus being at times present; optic disc changes may also occur. Very frequently capillary stigmata are present over the malar bones, and develop for a time as the disease progresses.

Male case of general paralysis with lateral

sclerosis and fatal termination.—Francis R., single, æt. 30, medical student, no history of insanity; first attack of six months' duration, said to have followed excesses and a former attack of syphilis. The first symptoms were change in disposition, oddness in behaviour, and absence of mind. He had always been vain about his appearance and his powers, and this had developed into extreme exaltation, so that he looked upon himself as a perfect paragon, notwithstanding the fact that he had failed to pass even his preliminary examination. On admission, September, 1881, he was a man of medium height, squarely built, fair complexion, with bright malar capillary congestion. His walk, although constant, was of the jerky kind I have described, the patellar reflexes exaggerated, the pupils unequal, the right being the larger, both reacting to accommodation, but slightly only to light. For twelve months he slowly developed weak-mindedness, great hesitation in speech, the facial and lingual tremors being extreme, and his whole appearance being one of great nervous irritability, the very approach of anyone causing him to give a general start. He lost control over his bladder and rectum, and slowly became indifferent to his surroundings, neither reading nor associating. By October, 1882, he was quite unable to walk alone, and could not articulate a single word, was very wet and dirty, and the lower extremities were becoming contracted. From this time he lost ground steadily, and died in March, 1883. *Post-mortem:* excess of subarachnoid fluid, with opacities of that membrane; the membranes peeled readily, but left both frontals rough, especially the left; ventricles large, containing excess of fluid; brain weighed 44 oz.; cord wasted, with very well-marked degeneration in the lateral columns.

Female case with lateral sclerosis of general paralysis and fatal termination. — Edith C., married, æt. 35, printer's wife, no history of insanity in the family; first attack of six weeks' duration. This patient, although married, had no children, and in this particular resembles several other cases I have met with, in whom the symptoms of general paralysis have been associated with childless marriage. She was admitted in March, 1883, the first symptoms having been false accusations against her husband. She then became incoherent and restless, wandering about in her night-dress, saying her husband wanted to poison her. She was excitable and had exalted ideas about riches; thought there was some chloroform in her husband's brain, that he was mad, and that she was a duchess. On admission she had hallucinations of taste. The pupils were extremely small, but equal, and this is noteworthy. In these cases the pupils are frequently pin-points and equal, reacting but very slightly. She slept badly, her walk was shaky and unsteady, and reflexes were greatly exaggerated. The ophthalmoscopic examination did not show any changes. After admission she steadily got more feeble in gait, more tremulous in speech, with difficulty of swallowing, and loss of power over bladder and rectum. In May of the same year she had an epileptiform attack with general convulsions, but the symptoms were most marked on the right side. From this time she lost power and sank. *Post-mortem:* great general wasting of convolutions, especially of the ascending frontal, right side; adhesions of membranes of first right frontal; great dilatation of lateral ventricles; brain weighed 44 oz.; cord wasted, with marked changes in the lateral columns; other viscera healthy, except atheromatous condition of arch of aorta.

This case is one of a good many that I have met with in which the ordinary mental symptoms of general paralysis, with exaggeration of reflexes and exaltation of ideas, have occurred in married women of middle age.

Cases with remissions.—In many cases of general paralysis, which have begun with the wildest maniacal excitement, this passes off, to be replaced by a period of arrest or even remission of the symptoms; and it is important to remember that the remission may appear to be so complete that patients are discharged recovered, only to be readmitted in a much more advanced stage of the disease. The remissions may be of variable length, rarely lasting more than twelve months. They occur more frequently in those cases in which the symptoms have been acutely maniacal; they very rarely occur more than once in any single case. I can only remember one patient in whom there was more than one distinct remission. These remissions are rarely complete, one or other of the bodily or mental symptoms persisting; and I should say from my experience that the tremor of lips and tongue, if once established, rarely, if ever, passes off; pupil irregularity may pass off, as well as changes in the reflexes and exaltation of ideas. The only case in which cure of general paralysis seemed to me to have occurred was that of D. McC.; but I regret to say that later I had evidence that he was again suffering from some obscure nervous disease, therefore I can scarcely claim him as an undoubted cure.

The following is his case: D. McC., married, æt. 50, railway agent, no insane inheritance; the first attack of insanity requiring seclusion, although he had been peculiar four years before; cause

said to have been over-work; was sober and industrious, all ideas of syphilis being repudiated. The first symptoms were those of excitement, with incoherent rambling conversation, exaltation of ideas both as to wealth and station; was benevolent with his exaltation, offering to benefit all his friends with thousands of pounds. He believed that he had a secret which was for the benefit of the human race. On admission, October, 1879, he talked incessantly, with the wildest exaltation; was sleepless, haggard, worn, and restless, being unable to stand still for a minute. He was treated with hyoscyamine for a time without any benefit. He was incoherent, and his left pupil was very much larger than his right. He informed me that a London oculist had told him it was due to syphilis; but he indignantly denied having had that disease. His speech was hesitating, and he got worse, although his general health improved; he took several hours to finish a short letter. In December of the same year an inquisition was held, at which well-known physicians gave evidence to the fact that he was suffering from general paralysis and not likely to recover. He was wet and dirty at times, and his memory became progressively weaker. On January 20, 1880, a carbuncle on the back of his neck began to form, and, rapidly spreading, caused an enormous swelling, followed by sloughing, which extended from the nape of the neck to both shoulder-blades. No sugar in the urine was discovered. From the time of the appearance of this carbuncle his mental symptoms improved, and by the 20th of March he was much improved mentally and bodily. He was sent to the convalescent home, and after that he was on leave till the end of May, when he was discharged well. Some months later a supersedeas was granted by the Court of Chancery, and

once more he was allowed to manage his affairs, and for the time was considered by his friends of sound mind and body. Since then I have heard that he was under treatment with anomalous paralytic symptoms, but without mental disorder, the opinion of his physician being that he was suffering from some syphilitic nerve lesion. But at that time he had for four years been at large, and as he had been able to establish his sanity after at least five experts of distinction had considered him a general paralytic, the case is sufficiently noteworthy.

Another case: Henry W., married, æt. 37, silver chaser, admitted February 9th, 1881, no insane relations; the first attack due to business anxieties, and the first symptoms showed themselves two months before admission, when he bought a plot of land without being able to pay for it. He talked about travelling and taking a hundred of his friends with him; he was going to build a large house and become a member of Parliament, and was full of extravagance and joyousness. On admission he was a tall, spare man, sleeping, eating, and digesting well, pupils contracted. These conditions were associated with tremor and hesitation of speech, and change in hand-writing, while restlessness was one of the most marked symptoms. This attack passed away, and in April of the same year he was sent down to our convalescent home, and then for a month's leave of absence to his own home. At the end of his leave he was so much recovered that he was discharged, his friends being warned that it was only a remission, and that the symptoms would probably soon start afresh, and then would be fatal.

On the 18th of October, the same year, he was taken back to Bethlem, his friends saying he had

slept well till ten days before admission, when once more he became extravagant and possessed of false ideas of the value of money. He collected rubbish, thinking it was gold, talked with much hesitation of speech about millions and of the hippopotami he was going to stock his farm with. It was now noticed that his expression was dull, that there was great tremor of lips and tongue, that the pupils were small and equal, skin greasy, speech clipped and hesitating, memory bad; he was very mischievous, tearing up books and clothes. At this time there was no change in his optic discs. In bodily health he improved, getting quite fat and healthy-looking, in which condition, with progressive loss of memory, he remained till August, 1882, when he had a fit, the temperature not being raised, and there being but slight convulsions associated with the unconsciousness. From time to time he had other fits, which were always of the following nature: without warning of any kind he fell forward on to the floor, and with slight twitching of all his limbs lay there unconscious for from ten minutes to an hour, passing his urine and fæces meanwhile. His recovery was like that of one waking from sleep; and although each fit left him mentally weaker, the change was only slight. In February, 1883, his vision was noticed to be weak, the pupils still contracted, but not circular; left optic disc pale, sharply defined; right optic disc very white, edges very sharply defined; knee-jerk well marked. He always replied that he was "very well," if spoken to.

The fits recurred; but it was strange that, even during the last month of his life, on several occasions he so far collected himself as to be able to speak not only consistently, but accurately, about things which had happened in the hospital two years before; this is only another example

of the extraordinary way in which general paralytics will temporarily recover from almost any symptoms. Towards the end of December of the same year he became unable to swallow, lost flesh rapidly, and died. *Post-mortem:* brain weighed 49 oz., there being excess of subarachnoid fluid, but a remarkable absence of adhesions between brain and membranes; the brain itself was singularly firm, the cord firm, with a considerable amount of fluid within the membranes; both lungs congested posteriorly; there was atheroma also in large amount in the aorta.

This case illustrates what has been said about remissions. Yearly I was obliged to discharge patients whom their friends considered perfectly recovered from attacks of insanity which I attributed to general paralysis, but these cures proved invariably but remissions.

General paralysis of the double form.—Cases of this variety were described at the International Medical Congress of 1881, by Dr. de Lemaëstre. It is, of course, open to objectors to say that they are only varieties of general paralysis with remissions, the period of remission being marked by typical reaction from the state of exaltation.

Herbert F., single, æt. 42, accountant, no insane relations; first attack of insanity, no cause known. Admitted in April, 1883, the symptoms having existed about six weeks; they began with nervousness and twitching, followed by depression and threats of suicide. This soon was replaced by great exaltation of ideas and extravagance. He believed himself rich and powerful, and offered marriage to several ladies. Tongue tremulous; pupils equal; hallucinations of hearing; memory weak; sleeps well; excessive patellar reflexes; writing shaky. Five weeks after admission he had

swelling of both legs, and some unhealthy-looking pustules formed. In June he was variable, weaker in mind, and emotional. In September he became melancholic and said he had offended God; but again he became emotional, violent, and passionate. In February, 1884, he was quiet and had none of the old exaltation, his appearance being that of one suffering from melancholy with stupor. His circulation was very feeble, his hands were livid and congested. There was little loss of expression; the tremor of tongue and hesitation of speech were less, yet he was wet and dirty. If he had been seen for the first time in February, he would hardly have been recognised as a general paralytic; and this is one of the chief characteristics of this variety, that it may impress the observer first as unmistakable general paralysis, then a change in the character of the disease throws doubts upon the diagnosis, and another change confirms the first opinion.

Such cases may begin with melancholia and pass into exaltation; or may begin with mania and pass into melancholy. Each change, however, shows increase of mental weakness.

I wish I could give as distinct groups of pathological changes as I have given of clinical symptoms, but I am not prepared to accept all Dr. Mickle's divisions as final and natural pathological entities.

CHAPTER XVI.

GENERAL PARALYSIS OF THE INSANE

(concluded).

Bodily symptoms—Mental symptoms—Diagnosis—Prognosis —Treatment—Morbid anatomy—Pathogenesis.

It will now be necessary rapidly to run over the symptoms which occur in general paralysis, and in doing this I shall first discuss the bodily and then the mental symptoms.

Bodily symptoms.—The *pupils* are said to be generally unequal. I shall give as my experience that in one group, those associated with change in the lateral columns of the cord, the pupils are frequently reduced to pin-points (myosis) and fixed; and in an asylum, if I meet with a case with such smallness of pupils, I at once expect a further development of the symptoms of general paralysis. Inequality of pupils is common, but not constant, varying not only in the different stages of the disease itself, but from day to day; the pupils are at one time eccentric and at another irregular in outline. In the later stages of the disease they are often dilated (mydriasis) and fixed. In tabetic cases the reaction to light is defective or absent, but to accommodation it may exist. I have no knowledge of any relation between dilatation of the pupil of one side being associated with any special symptoms. Fallacies must be guarded against; patients without general paralysis must be recognised as sometimes having inequality of vision in their eyes and inequality of

pupils. I have been misled for a time in patients who had syphilitic iritis, and once by a patient with a false eye.

Strabismus, *ptosis*, and *nystagmus* are rare in

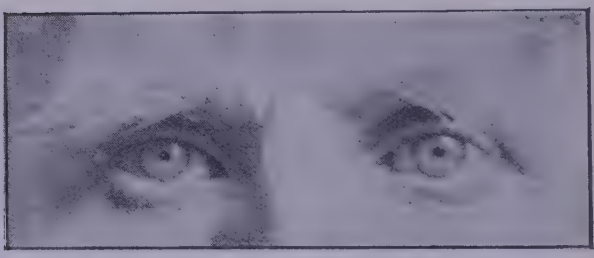

Fig. 18.—Myosis with immobility of pupils in G.P.I.

general paralysis. The condition of the *optic discs* has been discussed for years past, and my experience at Bethlem was that in the early stages of general paralysis, whatever the variety, there is certainly no constant change in the discs. There

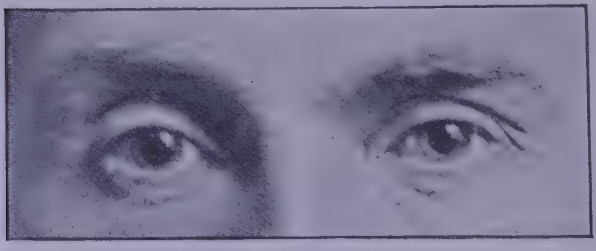

Fig. 19.—Mydriasis with immobility of pupils in G.P.I.

is no hyperæmia, no grey degeneration, nor any alteration either in vessels or in nervous tissues. Changes begin to show themselves in a certain number of cases towards the end of the second

stage; and, although it is uncommon to find any really distinct optic neuritis, changes associated with dimness of outline of the disc and with fulness of vessels become manifest. Vision may or may not be affected; as a rule either it is very slightly changed, or the patient is so weak in mind that it is not appreciated. In about equal numbers those patients suffering with tabetic symptoms and those with lateral sclerotic symptoms are affected by changes in the optic disc, and in several cases sight is completely lost. A full account of the changes which may occur in the optic discs will be found in the Ophthalmological Reports of 1883, vol. iii., the reports being by Dr. Edmunds, of St. Thomas's, and Dr. Lawford, who had been clinical assistant at Bethlem.

In my experience, *hearing* is not so commonly affected, and I have only met with two or three cases in which in the last stage of general paralysis of the insane hearing was lost almost entirely.

As to *taste* and *smell*, though I have perseveringly tried Voisin's experiment as to the loss of ability to detect the smell of pepper in early general paralysis, so far I have met with very few cases in whom this defect was present; I have met with a case of rapid general paralysis with general anæsthesia and progressive dementia in which pepper was not recognised; but as all the other symptoms were sufficiently well marked, this symptom was of no practical use. Taste and smell, then, are in my experience rarely affected.

Next in importance to the pupils, and according to some even of the first importance, is the condition of *tremulousness of lips and tongue*. Already I have said that of all muscular co-ordinations in the body those of the lingual muscles are most

highly organised and in degeneration suffer most and earliest. The nature of the tremor has been variously described by one as fibrillar and by another as general. I should say that in the earliest stages in which it is present it is marked by a slight irregular want of control, the patient projecting his tongue by little jerks, as if uncertain how much force was being used and to what extent it was being protruded. The tongue itself often has lost its expression and is irregular in outline; as disease advances it becomes still larger and more flabby, and if protruded at all, will be found to rest on the lower lip; the tremor is less in the morning than during the latter part of the day; it may be all but absent after periods of complete rest, but after talking, and more especially after eating, it is well marked. I think it is more manifest, as is also the tremulousness of the lips in general paralysis, with changes in the lateral columns. With the tremor of tongue and of lips has to be connected the clipping of words; this varies considerably, some patients scanning almost like those with disseminated sclerosis, others halting in speech or dropping the terminations of the words. It is interesting to remember that the change is very similar both in writing and in speech, so that just as there is a dropping of letters there is a clipping of words. Superfluous and irregular action of the facial muscles in speaking is common.

Besides speech alteration there are other changes in which the tongue is affected. In the most advanced cases great difficulty of swallowing arises, and this is one of the causes of fatal accidents to these patients. I have seen several cases who have introduced into their mouths large masses of food or even big pieces of bone, which they have managed to get lodged at the back of

the throat, with imminent risk of suffocation. In the early part of the second stage it is not uncommon to get peculiar movements of the jaws, as if the patient were swallowing his saliva. There may be a noisy movement of the lips, or, what is most common, grinding of the teeth, which when once established is rarely lost; so that patients becoming rapidly demented will grind their teeth for hours together, making the most objectionable noise, and, as I have said, eventually teeth may be broken or forced from their sockets. The food is swallowed by these patients unmasticated, and the appetite, which in the earliest stage of general paralysis may be capricious, becomes insatiable; the bowels, at first constipated, become regular during the greater part of the disorder, but in the later stages diarrhœa is not uncommon, masses of undigested food being passed.

The *skin* in general paralysis is noteworthy. In acute cases the face is pallid, often waxy; later, when expression is being destroyed, the skin becomes thicker and greasy, the greasiness appearing most about the forehead and the nose. This is often so marked that on passing a fore-finger over the side of the nose and closing the thumb on it the sensation as of powdered French chalk is given. I know of no special skin disease associated with general paralysis, but in later stages I have met with irregular bullæ appearing at different parts of the body. In the lateral sclerotic variety I have commonly met with a great deal of capillary congestion over the malar prominences, the import of which is doubtful. There may be some connection between these congestions and othæmatomata and pachymeningitis.

I have rarely met with hyperæsthesia in general paralysis, but *anæsthesia* is common. It may occur in localised patches in the earlier stages of the

disease, and may vary from day to day in the area over which it extends. It may pass off altogether for months, again to reappear in the later stages of the disease. In some cases it is extreme, so that I have known a patient sleep with his hand in front of the fire till it was completely roasted; and in another case a patient who, having a contraction due to a burn affecting his left arm, got a piece of pumice-stone and during one night rubbed an inch or more of the web into a hole. This anæsthesia, I believe, may alter the reaction of the reflexes; thus, on one occasion, a patient who for a long period had been my best example of exaggerated patellar reflex, when tried was found to have lost this symptom, and on further investigation he proved to be completely anæsthetic in his lower extremities. Accidental injuries are to be feared in such cases, as they are liable to bruise themselves unconsciously, and cases have been scalded to death by getting into a bath of hot water.

The *muscles* in general paralysis may remain well nourished and active for a long period. It has been said that there is no alteration in the electrical relationship of the muscles, and I must own that the experience gained in Bethlem by the use of the currents, the examination being made by skilled electricians, has led to no results. Stray muscles here and there were found to be losing power without any definite reason; my own feeling is that in most cases there is undue excitability in nearly all muscles during the first stage; and that this excitability is much more marked in those cases who afterwards exhibit fully developed symptoms of lateral sclerosis, in whom, towards the end of the disease, extreme contraction of the lower extremities takes place. For a very considerable time, even up to death, other

cases maintain rounded limbs, the muscles being of the ordinary size; although with them, as with the tongue, I should say there is a want of expression. Extreme wasting of the muscles in the final stages, with contraction of the limbs, is, however, usual.

In the same relationship we must look upon the *hand-writing*, to which symptom so much importance has been attached. As general paralysis advances, the patient becomes less able to write, but there is nothing absolutely characteristic in the hand-writing itself. Tremor may occur with age, with alcoholism, with paralysis agitans, with melancholia, and mania; and I have specimens of hand-writing from all the above which are indistinguishable. It is interesting to compare the hand-writing of the general paralytic in health and in disease, there being the same general character in the writing, although there is the tremor visible in both upstroke and downstroke as the disease progresses; but the shakiness alone is of no importance, unless the terminal letters are noted to be occasionally omitted. Repetition of words is also noteworthy. In a few cases I have seen a marked improvement in legibility in hand-writing in early general paralysis, the fact being that patients finding themselves unable to write quickly have, on this account, taken more pains with what they did. As the disease advances the patient can no longer write with a pen, but may be able to control a pencil; and with this the words become more and more abbreviated, so that when he is bed-ridden his speech is becoming indistinguishable, and he is no longer able to write.

The *bones* of the general paralytic sometimes become remarkably brittle; and when I hear of many fractures in a single patient in an asylum, I am inclined rather to blame the ribs than the

attendants. I have known a general paralytic get a fractured radius from a light blow with a hair-brush. Such fractures not unfrequently unite naturally, and this is one of the peculiarities of many general paralytics, that, although they may receive fractures, develop bed-sores or abscesses, these rapidly heal.

Besides the above changes there is a tendency to low forms of inflammation in the subcutaneous areolar tissue, so that in the first place we may meet with sluggish forms of whitlow or "mad-fingers"; or else light bruises may produce enormous abscesses, which contain pus mixed with broken-down blood. In one case a patient, simply by slipping out of his bed, bruised the outer side of his thigh, producing no abrasion of skin, but within two days there was an enormous bruise with œdema and tense swelling, resembling a bad case of phlegmonous erysipelas, which led to a large abscess; he recovered, however, without any bad symptoms, and without sloughing of skin. On the other hand, a patient died in Bethlem, and the friends were ill satisfied in consequence of the bruised condition of his body; a slight blow on the face having caused an enormous subcutaneous hæmorrhage, and a fall on his back from a bed having produced a symmetrical hæmorrhage into both loins of an extraordinary amount. No signs of the injury were visible for two days, when it was noticed that both buttocks were becoming black; the patient sank suddenly of acute septicæmia, and *post mortem* a felt-like clot of disorganised blood, with unhealthy-looking pus, was found between the subcutaneous areolar tissue and the muscles.

I believe that the *hæmatomata* which occur from time to time in the ears of general paralytics have a similar origin. These hæmatomata

are, in my opinion, more common in general paralytics than in other cases. I have seen them more than once in cases of chronic insanity; once in insanity with phthisis and refusal of food; in chronic mania with restless destructiveness; and in secondary dementia, with obstinacy about food. The left ear is more commonly affected than the right, and this certainly lends weight to the idea that traumatism, in the shape of the right hand of the attendant, has something to do with the causation. I have only seen one case in which a patient was discharged well, having had marked hæmatomata. My own feeling is that the causation of these swellings is altered condition of blood, and altered condition of smaller vessels, associated with violence of some kind. The blood is effused between the perichondrium and cartilage. Similar hæmorrhages certainly occur in other parts of the body when violence has been exercised.

Convulsions have been treated in two ways by those who have written on general paralysis of the insane, some treating them as essential symptoms of the disease, others considering them to be complications. Without pretending to explain their causation fully, I look upon them as a common, although not essential symptom, and yet not as a mere complication. The convulsions may be the very first noticed symptom; the first convulsion may be extremely severe, or it may be of a very slight nature. In one or two cases I have the history that patients had slight attacks of what looked like the *petit mal* of epilepsy for some time before general paralysis became fully recognised. In one case slight faintness followed by aphasia occurred some years before the patient had to be removed from home.

The convulsions may be at one time extremely

severe, and at another but very slight in character, sometimes being mistaken for a fainting fit; or they not uncommonly resemble a bilious attack. It is more common to meet with fits in patients who have become fat, and are quieter, than in those who are passing through the first acute stage; and in such cases the fits will mark a passage from the first to the second stage. The fits may be general, the patient falling down, with or without a cry, completely unconscious, and convulsed all over his body; the convulsions may be more marked on one side than on the other, and they may be noticed to start always from one spot; they may pass off in the course of a few seconds, or they may recur on the slightest external irritation for days together. Some fits have been called apoplectic from their extreme severity, and from their more frequently affecting one side of the body only. Many patients have convulsions on the one side followed by temporary hemiplegia, but I have not been able to trace any relationship between the part convulsed and the inequality of the pupils; although in some cases I have found that the side which was convulsed, and which afterwards became paralysed, at the onset of the disease was in a more excitable condition electrically than the opposite.

The results of convulsions in general paralysis are remarkable. They pass off more rapidly than if organic lesion were present, as in apoplexy; and less readily than in ordinary epilepsy; pointing, it seems to me, in many cases to an intermediate pathological condition, to a condition in which the discharge arises in consequence not merely of functional instability, but of alteration in the structure of the cortex. Besides the physical changes which follow convulsions, the

mental deterioration which succeeds them is remarkable, many patients becoming rapidly weaker and more childish after each fit. In one case I have seen a remission ushered in by a fit. At the time of the convulsions various treatments have been suggested: nitrate of amyl has been given, but I have failed to find any good result from its administration.

From convulsions one naturally passes to a consideration of the *temperature* in general paralysis. The fits are almost invariably associated with alterations in temperature, some cases having a marked increase shortly before convulsions. I have myself been fortunate enough, on one or two occasions, to have taken the temperature of a patient who within the hour had convulsions; and in such cases it was usually two or three degrees above normal. My experience is, that in general paralysis in the earlier stages there is very little, if any, increase in temperature, except in the acute cases. About the period of the onset of fits there is a tendency to irregular increases; before, during, and after fits the temperature may be high. Between the fits it may be normal, but not uncommonly there is a tendency to increased temperature at night, and all excitement, whether bodily or mental, at this time is associated with increase of temperature. The temperature varies irregularly, and I believe in many cases the irregularity depends on some intercurrent trouble. It is certain that with bed-sores and with local lung inflammations there occurs increase of temperature. In the later part of the disease, if uncomplicated, the temperature of the morning is about 100°, and of the evening 101° to 102°, and if any further increase occur it is well to be on the look-out for some physical trouble likely to terminate the case. In a few extreme cases I have met with subnormal

temperatures, so that the thermometer has registered only 96° or 97°. Accidental circumstances may cause sudden and marked increase of temperature, as was seen in the case I have described in which, with hæmorrhage into the cervical region of the cord, great increase of temperature took place. Most of the fits in general paralysis are associated with sweating, which may be partial, or unilateral, or general; the extreme amount of sweating which may occur is only to be appreciated when once seen. I have frequently seen the development of sudamina within a few hours of a fit. With the sweating, the temperature of the body rapidly falls.

Having taken sphygmographic tracings of hundreds of cases, I have come to the conclusion that there is no special *pulse* which can be said to be associated with general paralysis. In a few cases the left ventricle acts with undue vigour, as if to overcome some general resistance to the circulation, and in a few, distinctly febrile symptoms are present; but the pulse tracing points to nothing which can be in any way looked upon as characteristic in most cases of general paralysis.

The *urine* again varies extremely from a specific gravity of 1·010 to one of 1·035. In the majority of cases I found there was excess of phosphates, that chlorides might be reduced in quantity, and that urea was abundant, but uric acid not in excess. Intermittent albuminuria and glycosuria are described, and peptonuria occurs.

Mental symptoms.—The signs of general paralysis are simply evidences of progressive mental weakening; and in acute alcoholism one sees produced temporarily every shade of mental symptom which may be seen more permanently in general paralysis. Earliest, we meet with *loss of self-*

control, and latest, we come to loss of all *bodily power; emotional disturbance* is common, patients becoming lachrymose and lustful; the will is feeble and uncertain, driving the patient headlong in one direction, only the next moment to carry him in the opposite. His senses may be perverted, but hallucinations are not so common among general paralytics as among most of the other types of insanity.

The symptom by which general paralysis has been best recognised is that of *exaltation* or of *grandeur;* and although ideas of power and influence are met with, as we have seen, in other conditions, yet there is something almost characteristic in the great ideas of the general paralytic. The patient is altogether exuberant; he is prepared for any emergency: at one moment saying he is a king, and at the next an inventor; in one breath claiming the queen for his wife, and in the next prepared to add all the duchesses to his harem. There is a strange benevolence in most of these cases; they are only too anxious to share their wealth and blessings. The exaltation may assume many forms, one of the simplest being represented by the patients who tell you they are "all right," and such patients will tell you they are as well as ever they were, though unable to stand. Another class is chiefly concerned about meals, and although they may be having the most ordinary diet they will tell you the meal consists of whale cutlet or stuffed elephant. Such patients may appreciate the folly of a neighbour, but fail to see anything peculiar in their own ideas. Thus, I have heard the following conversation between two general paralytics: "I am king of England," said one; the other, turning with a scornful laugh to me, said, "That man says he is king of England; I am God Almighty, and I don't

know him." In the same way I have known a medical paralytic recognise the disease in others by the very symptoms from which he was suffering himself.

Grandeur of ideas with benevolence is the chief characteristic of the exaltation of general paralysis. The patients think happily, they talk happily, they write happily, and are altogether inconsistent till the weak-mindedness which comes on leaves them demented, although possibly still automatically muttering of their past glories. Voisin says that the *melancholia* which may be present with general paralysis has generally a hypochondriacal form, there being three marked varieties, namely, the ideas of obstruction of the organs, the denial of existence, and the idea of reduction in size, what in fact has been called micromania. If the mental symptoms are those of *dementia*, the symptoms are in no way special, one part of the mind seeming to suffer more in one case than in another, till the disease so far advances as to reduce the patient to a condition of complete dementia similar to that met with in the last stages of other mental disorders.

Diagnosis.—The fatal nature of this disease makes it of the utmost importance that a definite diagnosis should be made, and I shall point out several sources of error, premising by saying that I still find the utmost difficulty in foretelling the probable result not only in cases of hypochondriasis with melancholic symptoms, but in many middle-aged men with maniacal excitement. There is not one single pathognomonic symptom of this disease, and in deciding, one must form one's judgment by taking the history and the symptoms together.

Alcoholism, acute or chronic, is probably the most common cause of error. General paralysis

may result from alcohol, or alcoholism may accompany general paralysis. The diagnosis must depend upon the other physical symptoms and on the history. The man who is an habitual drunkard, and who, having been led into a debauch, suffers from gastric disturbance or sleeplessness, and has no inequality of pupils, no change in his reflexes, no greasiness of skin, is probably suffering from alcoholism and not from general paralysis; time alone will clear up to a certainty his condition. The chronic drinker may develop symptoms referable to the nervous system, tremors, weakness of limbs, mental deterioration and the like, leading to confusion. These, however, are not progressive unless the cause remain in action. The same difficulty has arisen from *lead poisoning*, only there the history and the blue line, with possibly some affection of the extensor muscles of the fore-arm, will enable one to form a diagnosis; although I believe lead poisoning, like alcohol, may produce general paralysis.

In my experience, the most difficult cases, after those with alcoholism, are those suffering from *chronic maniacal excitement*, and I have had frequently to retain such patients for months, without being able to satisfy myself as to the diagnosis. They are restless, excited, loquacious, joyous, and boastful, and with exaltation they may even be benevolent, but more frequently they are aggressive. Their appetites after the earliest stage of sleeplessness become enormous; there may be tremor of tongue and lips, but physical symptoms are less marked than in general paralysis; the pupils are generally equal; the complexion is sallow and leathery; but the face keeps thin, and there is little or no loss of expression; there is no tendency to fits; they are destructive of their clothes, frequently pull out their hair, and are noisy and

destructive at night. There is not the same tendency to remission or to get fat which is common in general paralysis with a maniacal onset. In the latter memory and knowledge of surroundings are more disturbed. In many such cases blistering of the scalp has resulted in cure; and in others the symptoms have become fixed, constant chatter of an incoherent kind persisting.

At the commencement of the disease the symptoms may resemble those of neurasthenia. In cases of the latter disease there is recognition of illness, but time, including the failure of measures which commonly improve neurasthenia, is often needed to clear up the diagnosis.

Syphilis may produce mental and bodily disorders hardly to be distinguished from general paralysis, and it also causes the disease. In the first place there may be thickening of the arteries due to the syphilis, leading to dementia, and I do not know any means of distinguishing the one class from the other, as often anti-syphilitic treatment fails to have any effect whatever. Gummata, if they happen to correspond with the motor areas of the brain, similarly produce symptoms resembling general paralysis, but with them there is greater frequency of headache, and much greater tendency to strabismus and ptosis, followed, if the case be progressive, by hemiplegia; there may, in addition, be facial paralysis, or some marked paralysis of a cranial nerve, or loss of one or more special senses. Treatment will in some cases decide as in the following: John Charles P., married, æt. 34, clerk, admitted October 2nd, 1883, no insane relations; first attack, lasted three months. He had been somewhat intemperate; suffered from syphilis; was suspicious, and thought people were going to murder him; was unable to look after his business; thought he had swallowed a button,

which caused him great bodily suffering; he tried to choke his wife and to cut his own throat. After admission he was noticed to have marked ptosis, external strabismus, and dilatation of right pupil; was dull and obstinate, wet and dirty. Ophthalmoscopically, the right eye showed choroido-iritis, with patches of atrophy and masses of pigment. The treatment by perchloride of mercury was followed by satisfactory results, and he was discharged recovered.

The melancholia of the *climacteric period* in women is distinguished by greater emotional disturbance, and preservation of memory; the speech is more coherent, the actions more comprehensible.

In old patients diagnosis is often difficult, for progressive weak-mindedness is common as a result of *senile changes;* the bodily symptoms of general paralysis are, however, absent, and the grotesque and changeable delusions; but excesses in old patients may produce general paralysis, which runs a similar course to that seen in younger patients.

Post-apoplectic dementia may be mistaken for dementia following the fits of general paralysis, and this is sometimes hardly to be distinguished, except from the fact that with apoplexy the paralysis is more permanent, leaving the patient for weeks hemiplegic, so that there may be pronounced weakness of one limb or another long after recovery from other symptoms, while fits of general paralysis occurring in an old man will leave him very little the worse in body, although vastly deteriorated in mind.

Some *forms of tumour* affecting the brain may lead to suspicions of general paralysis, and I am inclined to think that implication of the frontal lobes by any growth may cause grave doubts, and unless headache or some local nerve palsy occurs

the case may be difficult to diagnose. I have seen hydatids affecting the frontal regions produce anomalous mental symptoms not cleared up till after death.

Epilepsy may end in weak-mindedness, but the frequency of the fits, with the comparatively slight loss of mental power following them, distinguish them from the fits of general paralysis; the physical symptoms of the latter are also absent. I can understand that *disseminated sclerosis* may produce symptoms of weak-mindedness, tremulousness, hesitation of speech, fits, and the like; but I have only seen one case in Bethlem, and in this the age, the irregularity of the symptoms, the nystagmus, and the tremor of hands and head cleared up the diagnosis.

Apart from cases in which locomotor ataxy is present in general paralysis, others occur of *locomotor ataxy with psychical symptoms.* These run a very chronic course; in the early stage a diagnosis from general paralysis is scarcely possible, and this can only be made definitely after the lapse of time, such cases not progressing but passing into stationary condition. (See further, pp. 390-93).

Other possible fallacies have been suggested, and Dr. Mickle, in addition to the above, gives dementia with other forms of paralysis, senile dementia with paralysis, paralysis agitans, chronic generalised palsy (such cases probably may be general paralysis without mental symptoms), other forms of acute or chronic paralysis, acute ascending paralysis, tremors of age, and simple speech defect.

What has already been said will suffice to distinguish general paralysis of the insane from conditions nearly allied to it. It remains to be added that of recent years the examination of the

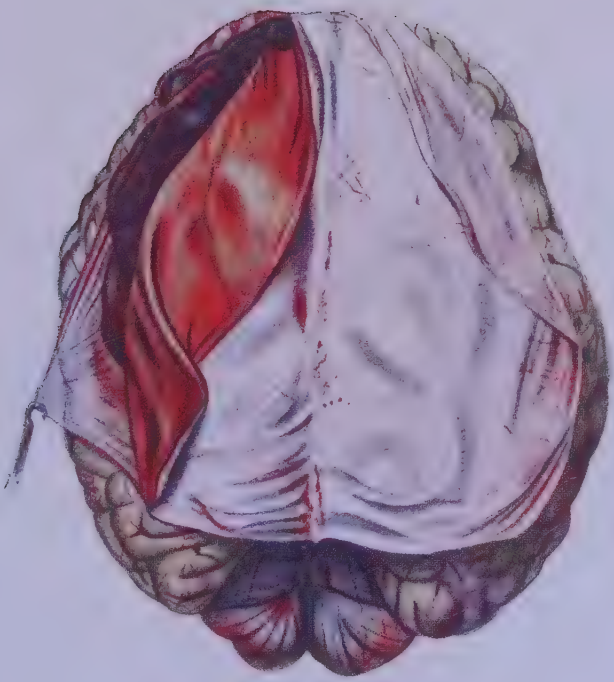

PLATE IV.—PACHYMENINGITIS HÆMORRHAGICA (HÆMATOMA OF THE DURA MATER).

(From the *Journal of Mental Science*.)

cerebro-spinal fluid obtained by lumbar puncture has proved of assistance in diagnosis. In organic diseases with inflammation of the cerebro-spinal meninges there is an increase in the amount of albumin contained in this fluid, and also lymphocytosis: the meningitis may be due to various causes, including syphilis. In the early stages of a doubtful case excess of albumin and lymphocytosis would strengthen the diagnosis of general paralysis, whilst if these conditions are absent the disease may be excluded.

Prognosis.—As soon as it is definitely settled that a patient is suffering from general paralysis of the insane, the prognosis is really made.

No such case, as I have said, when fully established, ever recovers; remissions occur, but not cures; in some cases, however, the disease runs a much slower course than in others. My own experience agrees in the main with writers who say that the average duration of a case of established general paralysis is three years. By this one means that as soon as the speech, the pupils, and the gait, together with signs of mental decay, show themselves, three years would almost certainly see the fatal conclusion of the case. In my experience cases of simple general paralysis without marked mental symptoms live much longer than those in which there is both bodily and mental degeneration. The disease, as far as prognosis is concerned, must be considered from the maniacal, melancholic, and demented sides. With acute mania a prospect of remission exists; so that in most cases the general paralytic, with ambitious mania and restlessness, after a few months' treatment becomes quiet, and remains so for periods varying from a month to over a year before a return of excitement or of convulsive seizures, which may rapidly produce a fatal ending. With

melancholic general paralysis the progress is pretty uniform, and I think rarely lasts two years. With simple progressive dementia the symptoms may last for several years. In nearly all cases the prognosis is influenced by the body temperature and by the occurrence of fits, so that a patient who has a temperature constantly over 100° will probably rapidly sink, and a patient with constant recurrence of fits will likewise probably die early. In women the disease is not, as a rule, so rapid as in men. The early occurrence of bed-sores, abscesses, or lung complications tends greatly to the increase of danger. Patients who after the acute stage rapidly become fat, run a great risk of early and severe fits. There is danger, as I have said, from local injuries, the blood appearing to be in a very unhealthy condition, and septicæmia may result from comparatively slight injuries.

Treatment.—In my opinion, the general paralytic requires, above all things, to be removed from his home and surroundings, and to be fed with light, rather unstimulating food, and to have sufficient, but not exhausting out-door exercise. Return to home is one of the most certain things to produce a relapse, and in the case of many of the general paralytics who have passed through my hands, and about whom I have had some doubts, the diagnosis has been cleared up at once when their friends have insisted upon trying them at home. Any excess acts disastrously, and I believe that this statement may even be extended by saying that general paralytics are extremely susceptible to the influence of powerful drugs. In cases where marked violence with destructiveness was present, I tried hyoscyamine, but found it necessary to give that drug with the greatest caution, as one-twentieth part of a grain

would produce alarming symptoms of collapse. I have refrained for some time from giving any powerful drugs of that kind, for fear of doing harm by shaking further the tottering physical edifice.

Careful feeding is required, in the later stages with minced food, as there is risk of choking. Retention of urine must be guarded against. Bed-sores are very liable to occur, to prevent which good nursing is essential. The linen should be smooth and dry, the skin kept dry, and prominent parts gently rubbed with spirit. The evacuations should be regulated as far as possible, and an air- or water-bed or pillow employed, with change of position of the patient. Prolonged warm baths are recommended for bed-sores actually developed. The various hypnotics may be tried when insomnia and restlessness by night are marked. The prolonged warm bath is at times serviceable here also. For the convulsive seizures, when marked, such measures as the injection of camphor or ether, the infusion (subcutaneous or venous) of physiological salt solution, and the promotion of diaphoresis and diuresis, and the emptying of the bowel by enema, are to be tried.

Morbid Anatomy.—The usual morbid conditions are briefly as follows: Skull commonly thickened and congested, diploë diminished. Dura mater adherent to skull to varying extent. On its inner surface may be deposits more or less extensive of blood or membrane, or mixed blood and membrane. The blood may be recent, in the form of clot, or there may be ferruginous staining. In one case three convulsive fits were represented by three films on the dura, of different shades of red-brown. A chronic organised clot, adherent to the dura, occupying half or more of the vertex, may be seen ("hæmatoma" of the

dura). Similarly, a membrane may be filmy, recent, easily removed, or chronic, firm, adherent.

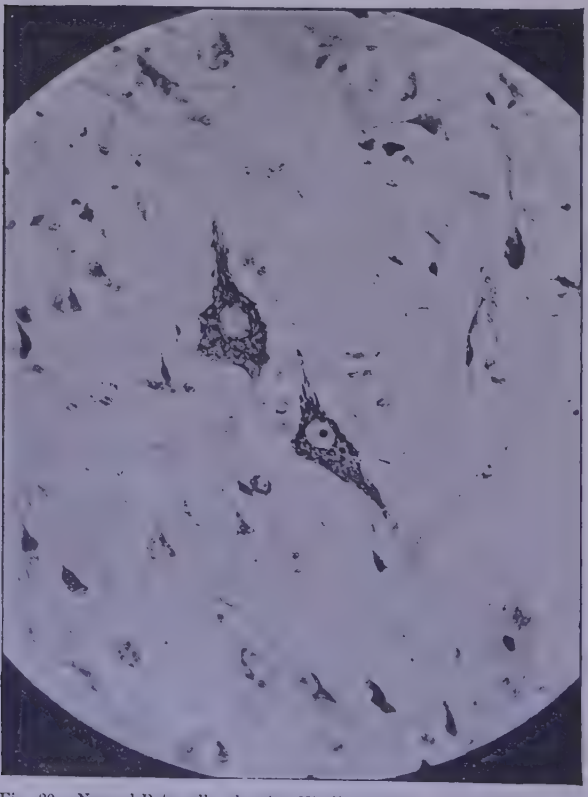

Fig. 20.—Normal Betz cells, showing Nissl's bodies in the cell-body, with nucleus and nucleolus. Nissl's stain. × 325. (*Dr. J. S. Bolton's preparation*).

This membrane is ascribed to pachymeningitis, and may be as extensive as the so-called hæma-

toma. In one case the membrane constituted a hard, cartilaginous cap, resembling a second calvarium. The leptomeninges (pia-arachnoid) present milky streaks and patches, principally along the sulci, and are very vascular, and thickened and swollen, "gelatinous," over the sulci especially. These appearances are found particularly over the fronto-parietal areæ. The subarachnoid fluid is increased, and lakelets of fluid take the place of wasted gyri, especially over the central gyri and neighbourhood. The pia is in numerous cases adherent to the summits of the gyri, especially over the fronto-parietal region, leaving erosion of the cortex if peeled. Cases occur without any adhesions; in others the pia adheres over the entire surface. In the later stages of the disease adhesions are usually absent, and the membranes peel in sheets. There is excess of fluid in the ventricles with softening of the surrounding tissue. The ependyma of the ventricles is thickened and granular; the peculiar glistening granules being especially found in the fourth ventricle. The gyri are atrophied, especially in the regions mentioned above, the sulci gape. The prefrontal gyri are sometimes riband-like. The brain weight is reduced. The brain is sometimes firm, cutting like a cheese, oftener softening is observed, with great vascularity of grey and white matter. The perivascular spaces are found dilated in the white substance, many small holes being visible; foci of softening may be present in the white substance.

None of the above conditions is peculiar to this disease, but the combination is characteristic.

Degenerative changes also occur in the spinal cord; there may be much wasting, with excess of fluid, local or general pachymeningitis, effusions of blood within the dura. Degeneration of the posterior (especially postero-lateral) columns and

lateral columns may be found, and changes, all tending, as in the brain, to destruction of the specific (nervous) tissue and its replacement by con-

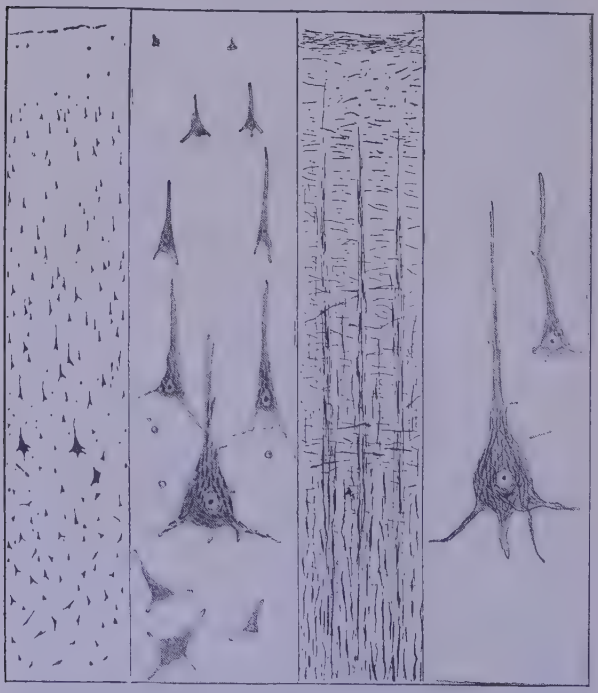

Fig. 21.—Diagram of normal cortex in the motor area.

The first column represents diagramatically a typical strip of the cortex, stained by Nissl's method, showing the column of Meynert. Low power.

The second, details of the same specimen from the molecular, pyramidal granule and Betz cell, and polymorph layers respectively, more highly magnified.

The third, the typical fibre arrangement of this area, stained by Weigert's method, showing tangential, supraradial, interradial and radial fibres. Low power.

The fourth, normal pyramidal and Betz cells, stained by Cajal's method to show neurofibrils. More highly magnified.

nective tissue, occur in the spinal ganglia and roots, and in the peripheral nerves.

Microscopically the nerve cells, connective

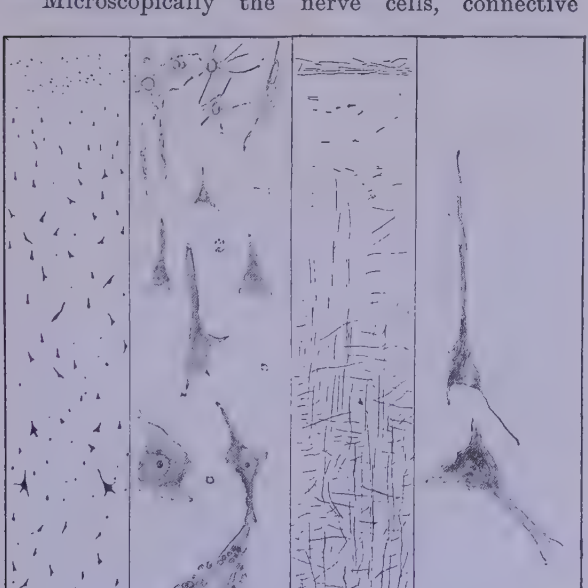

Fig. 22.—Diagram of the motor cortex in G.P.I. (Compare with Fig. 21.)

First column. Strip, stained by Nissl's method, showing disorganisation of the columns of Meynert. Low power.

Second column. Details of Column 1 more highly magnified. The cells show processes broken off, and there is marked chromatolysis; superficial layer shows proliferation of neuroglia cells; a vessel is seen with infiltration of lymphocytes and plasma cells in the lymph sheath.

Third column. Strip, stained by Weigert's method for fibres, showing marked outfall of fibres, especially of the tangential, supraradial and interradial systems. Low power.

Fourth column. Pyramidal and Betz cells, stained by Cajal's method, more highly magnified, showing the fibrils as diminished or atrophied.

Fig. 23.

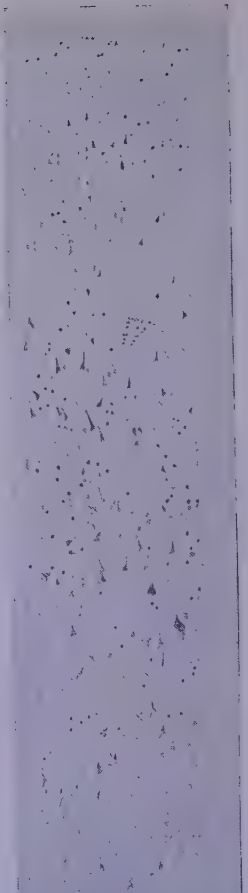

Fig. 24.

Fig. 23.—Normal cortex from top of the ascending frontal convolution. Stained by Nissl's method. × 45.

Fig. 24.—Cortex from a case of G.P.I., from the top of the ascending convolution. Stained by Nissl's method. The regularity of the cell-layers is largely destroyed, the cells and their processes are disfigured and stunted, and there is paucity of nerve-cells. × 45.

tissue, and medullated fibres of the brain are all affected. The layer-formation of the nerve cells is largely destroyed owing to the sclerotic changes in and contraction of the neuroglia. The large

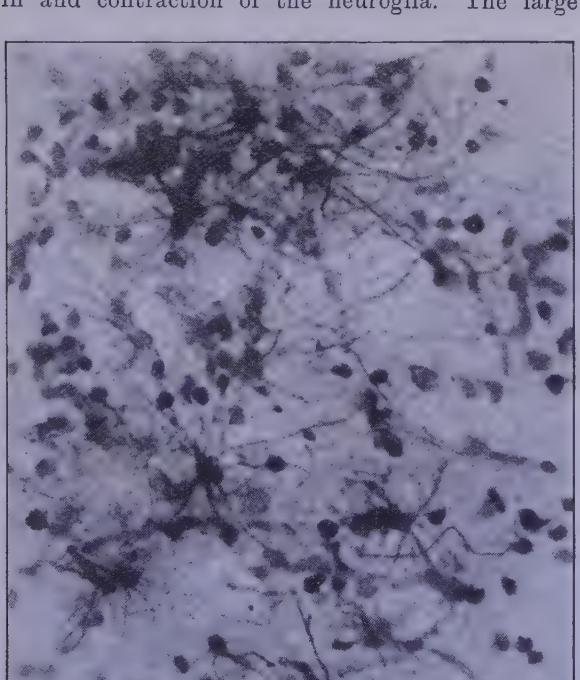

Fig. 25.—Connective tissue ("spider-cells") much enlarged, among the cells of the cortex cerebri, in a case of G.P.I. Their processes are here and there seen to be attached to blood-vessel walls. Fresh frozen brain, aniline blue-black. × 300.

nerve cells show acute changes, the bodies being swollen and staining badly and diffusely, the chromophile granules being no longer visible; granular degeneration occurs, the nucleus is dis-

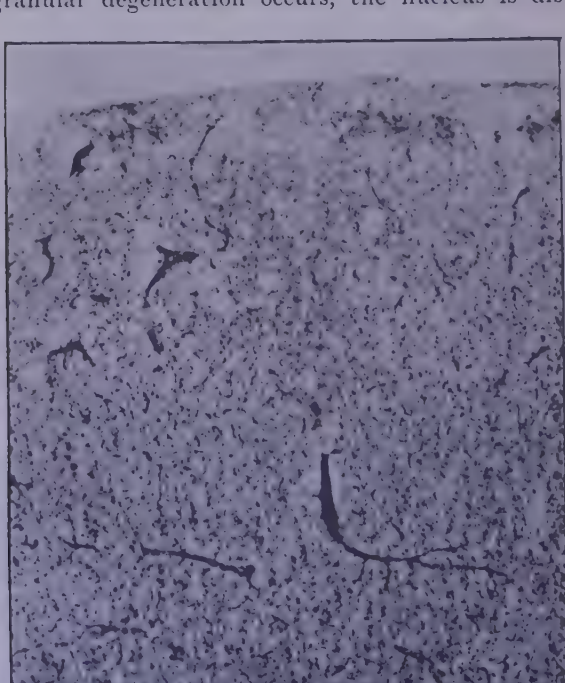

Fig. 26.—Increase of connective tissue cells throughout cortex cerebri in a case of G.P.I. The outermost layer shows dark masses which are aggregations of the "spider cell" element. There is also much increase in vascularity. Fresh frozen brain, aniline blue black. × 30.

placed, altered in shape. These cells further become sclerosed, shrunken, their staining increased

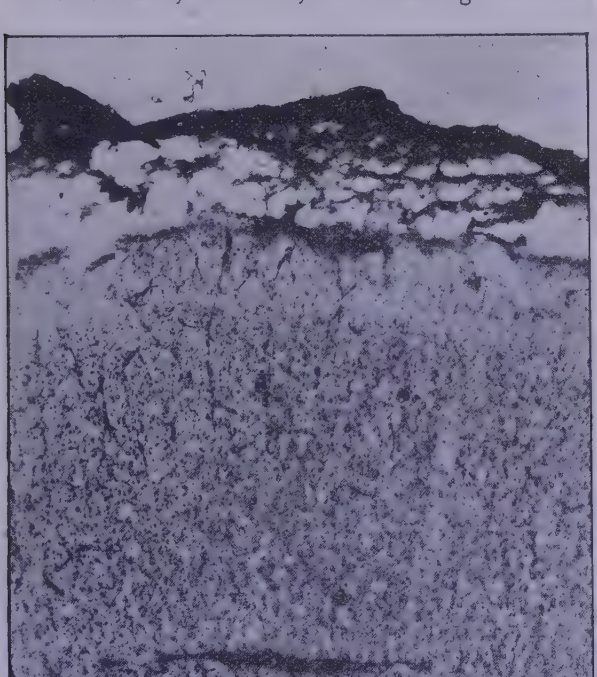

Fig. 27.—Showing adhesion of pia mater to cortex, thickening of pia, connective tissue increase in and vascularity of cortex, in a case of G.P.I. Fresh frozen brain, aniline blue-black. ×30.

and homogeneous, with staining and obscuration of the nucleus, the axis-cylinder and other pro-

cesses becoming more evident. The neuro-fibrils in the cell have lately been shown to disappear.

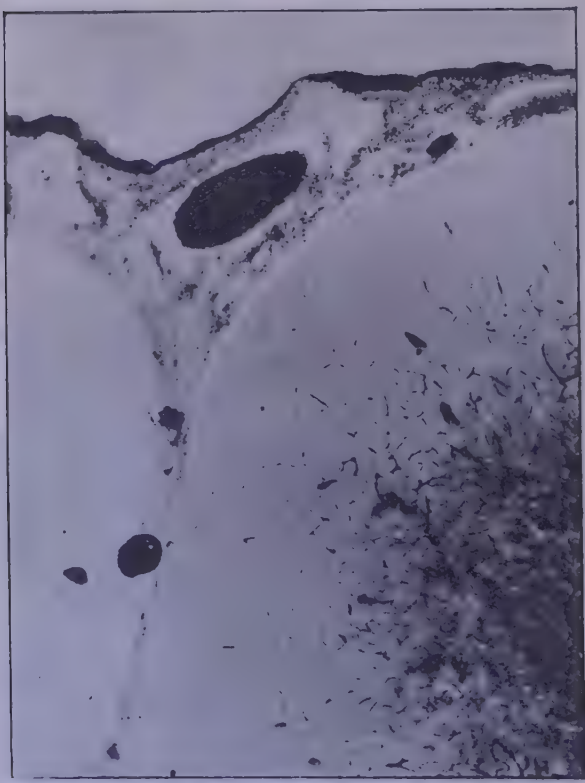

Fig. 28.—Destruction of medullated fibres, transverse and radial, irregular and deep staining of the glia, thickened and adherent pia mater, blockage of pial vessels, great vascularity of pia and cortex, in a case of G.P.I. Kultschitzky-Wolters stain. × 30.

The medullated fibres, both tangential and radiary, show degeneration (atrophy, poor staining, vari-

cosity), and largely disappear. Vascular changes in the cortex are as follows: Vascularity is much increased, the walls of the vessels are covered with small round cells, and show also plasma- and mast-cells; in the perivascular spaces and around the vessels there is small round-cell infiltration; aneurysmal swellings occur, and thickening of the intima of the vessels is noted, with occasional obliteration; there is formation of new vessels. The cells and fibres of the glia (especially the Deiter's or spider cells) show marked growth and proliferation, especially in the outermost layer of the cortex. The spider cells, with their processes stretching to the vascular sheaths, are prominent objects, and such cells may be seen closely applied to a nerve cell. The central ganglia and cerebellum show changes similar in kind to the above.

The other organs of the body show degenerative changes in advanced stages of the disease, practically all of them. Chronic renal changes (chronic nephritis) have especially been commented upon by different writers.

The **pathogenesis** of general paralysis* is still obscure, some regarding the disease as primarily inflammatory, others as primarily parenchymatous (neuron-degeneration).

* Dr. Ford Robertson of Edinburgh has made many careful investigations as to the micro-organisms which occur in general paralysis, and he is persuaded that there are constantly present in the nervous and vascular tissues in this disease diphtheroid bacilli, which may have originated in the gastro-intestinal tract. He is further persuaded that by culture and inoculation similar pathological changes have been produced in the lower animals. These observations have not so far been accepted by English pathologists.

CHAPTER XVII.

INSANITY ASSOCIATED WITH THE GROSSER LESIONS OF THE NERVOUS SYSTEM.

Insanity following apoplexy — Paralysis agitans — Insanity with locomotor ataxy independently of general paralysis —Insanity with brain tumour—Insanity with multiple sclerosis.—Syphilis and insanity.

Insanity following apoplexy.—This division is one in which I shall place several varieties of mental disorder associated with conditions of physical weakness due to changes in the nervous system.

It is one of the most striking evidences of the close relationship which exists between mind and brain, that serious damage to a brain, such as that following from apoplexy, rarely allows of perfect intellectual recovery; and that just as a scar remains as the evidence of an old wound, so change in disposition, or loss of memory, may be the intellectual scars left by apoplexy. The lesions take place at the base, not the surface of the brain.

Every variety of weak-mindedness may be the result of apoplexy; for instance, I have known a man, who formerly was a fluent speaker, recover with an ability to write and to understand as well as ever, but with inability to express himself with freedom of speech. Probably emotional instability is the most common result of apoplexy, the person becoming loquacious, irritable, and tearful. These slight perversions may have no direct interest for the asylum physician unless they develop beyond moderate bounds; but still, in them must

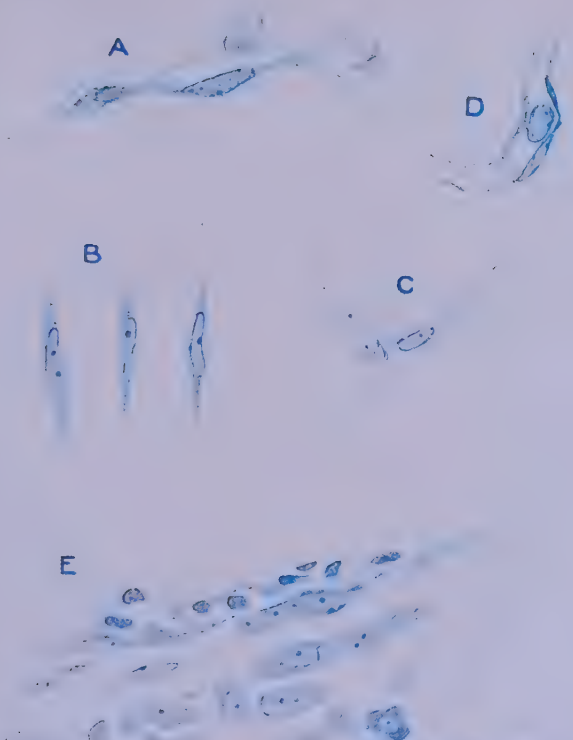

PLATE V.—ENDOTHELIAL PROLIFERATION.

From the cortex of a case of paralytic dementia. Stained with polychrome methylene blue. × 500. A and C, Sprouting capillary; B, Rod cells (Alzheimer, Stütchenzellen); D, endothelial nuclear proliferation of capillary; E, longitudinal section of small vessel showing lymphocytes on the sheath, and nuclear proliferation of the endothelial cells.

be recognised the earlier stages of a diseased process. The loss of memory, irritability, and loss of self-control may render it necessary to seclude patients; and I have seen several important trials as to the validity of wills turn upon the degree of mental weakness exhibited by a patient after apoplexy. The loss of memory may be so extreme that a patient is not responsible one moment for what he did the moment before; or a man may be so emotional that slight influence from without must be acknowledged to be undue influence and sufficient to invalidate a will.

Of all symptoms following apoplexy, aphasia, associated usually with right-side paralysis, appeals most strongly to the minds of laymen; and I have known at least one patient considered to be insane by a jury because he was unable to express himself in words, the jury being fully convinced that a man who made unintelligible noises, when asked a plain question, must be a fool. About the same time as the above inquisition was held, a jury accepted the fact that a man, who had recently died, might have been of sound mind although aphasic, and his will was held good, the two cases showing how difficult it is to impress a jury with the essentials of a condition like aphasia; when the aphasic patient is before the jury, their common sense, so called, overrides an expert's opinion. I would say, in reference to this subject, that aphasia may exist to almost any degree, yet there may be sufficient mental power to transact all the business of life sanely and satisfactorily.

The cases of insanity following apoplexy divide themselves into those with excitement, those with depression, and those with simple weak-mindedness; the majority of the cases being weak-minded from the first, but the dementia becoming more and

more profound. The apoplexy may be the result of arterial blockage, upon which follows localised softening, or of true hæmorrhagic effusion. In the former state patients are rarely admitted into Bethlem, though such cases, I believe, are not uncommon in county asylums, where patients live for many years, and die of old age with its degenerations.

Apoplexy with excitement.—Apoplexy in the following case was dependent on brain softening; it occurred in a case of chronic insanity, and was associated with a considerable amount of excitement. Jane W., married, admitted into Bethlem in September, 1857, when 60 years old, with the idea that people were conspiring against her; her mental derangement was attributed to a law case. She was a quiet, industrious old patient till the apoplexy preceding her death. In November, 1876, she fell down insensible, but soon regained mental power, still, however, suffering from left hemiplegia. For the next few months she remained in bed, at times being quiet and sensible, in fact more sensble than she had been for years; but during the night, and at other irregular intervals, she was violent and noisy, sometimes screaming for hours together. She said she felt herself falling through the bed and floor, and gave this as the reason for her excitement. She sank and died in the middle of January of the next year. *Post-mortem:* the brain, which weighed 38 oz., exhibited considerable wasting of the convolutions, dura mater thick and adherent to calvarium, arachnoid opaque, pia mater easily separable from brain, much atheroma of vessels at base, a spot of softening the size of a hazel-nut at posterior edge of right thalamus opticus; there was nothing abnormal in the rest of the viscera.

This case was of interest from the fact that

disturbance within the skull was associated with change in the mental symptoms in a person who, for twenty years, had been under observation in Bethlem, there being a transition from comparative sanity to maniacal excitement.

Apoplexy followed by dementia.—In this case the patient suffered from more than one attack of apoplexy, but did not regain sanity after the first attack. Alfred D., married, æt. 59, doctor; both father and mother died of apoplexy; he was sober, and had no history of other bodily illnesses. He was admitted in 1872. Six months before admission he had a fit, and from that time he became childish, saying "yes" to everything. His memory was so imperfect that he did not recognise his own name, and any words he uttered were incoherent; at times he would give way to great passion, and at other times he would appear melancholy, and burst into tears. Although feeble, he attempted to get about, and he would wander in an objectless way from place to place. In July of the same year he had another fit, which is described as affecting his whole body. In September following he was found by the night-watch on his left side, and vomiting, with his right arm over his chest moving in a waving manner; he resisted if the right side were pinched; there was no reflex when a similar stimulus was applied to the left; pupils were small and equal, breathing became more difficult, and he died on the following day. *Post-mortem:* there were several independent hæmorrhages, one affecting the left frontal lobe, which it had excavated; both occipital regions bore scars and old pigment; in the right ventricle was a large quantity of loose black clot; brain weighed 50 oz., heart 17 oz.; convulsions of both sides were flattened by pressure; kidneys with small cysts and with adherent capsules.

In this case an unusual number of hæmorrhages occurred, and the result was simple progressive dementia without excitement, the course of the disease being rather rapid. In such cases as this, one would recommend that the patient should be kept at home if possible, as the prospect of life is short, and the difficulty of managing a paralysed patient, especially if only weak-minded, is not extreme.

Mental change immediately succeeding an attack of apoplexy, which was followed by a second fit terminating fatally.—Joseph L., married, æt. 35; no insane relations; a jewel-case maker; first attack of insanity attributed to over-work, although there is no evidence as to the nature of this over-work. The patient was admitted into St. Thomas's Home early in November, 1883, suffering from the result of fits, supposed to have been epileptic. He had been excited, and fancied people were against him; said that hands were continually being placed on his bed with a view of injuring him; he repeatedly got out of bed to catch these people. He saw rats about his bed, and said that he was walking a great many miles a day on business. His character was said to have been changed ever since an attack of fits. Formerly he was quiet and reserved, but now talkative and communicative. He had attacked his friends; he thought they were mesmerists and conjurers, who prevented him from sleeping, and that his workshops were in the hospital. Four days after admission I found him apparently in a sane condition, with no sign of paralysis except slight facial palsy. His memory appeared perfect, and he recognised the delusions from which he had suffered. He made complaints of feeling cold, but went to bed at the usual time, and was found dead at 4 a.m.

Post-mortem: the membranes on right side

were gorged with blood, causing considerable flattening of the convolutions; there were evidently two periods of hæmorrhage, one marked simply by blood staining of a brownish colour, which merely stained the frontal lobes and the superior occipital lobe, the mass of blood having been absorbed; the second was a large fresh clot, separating cortex from membranes, which had escaped from right lateral ventricle, the latter being filled with a very large, fresh, soft clot which had burst through the outer part of the corpus striatum. Other parts of the brain were healthy. Great thickening and calcification of the mitral valves, and some atheroma of the aorta.

Here we have arterial degeneration and apoplexy in a young man, there being two sets of fits, each represented by a separate hæmorrhage; the first hæmorrhage seems to have been slight, and to have spread chiefly over the right frontal region, a small quantity also affecting the occipital region of the same side. Together these hæmorrhages were sufficient to set up all the mental disturbances from which the patient suffered.

Besides the cases in which hæmorrhage or softening sets up mental disorder, there are other cases, rarely seen except in asylums, in which effusions of blood occur beneath the dura mater. I have seen several such cases in which the appearances were misleading.

These blood effusions are the result of changes which have given rise to symptoms of general paralysis of the insane, and are stages of pachymeningitis.

Arterio-sclerosis, with resulting foci of degeneration in the brain, may produce mental disturbance, as is seen in senile insanity.

The relationship of paralysis agitans to insanity and moral degeneration was

described by the late Professor Ball, of Paris, who came to the conclusions that mental derangement is more frequent in paralysis agitans than has been generally supposed; that in slighter forms the psychological change is limited to irritability and restlessness, but that in more severe cases it amounts to positive insanity; that three forms at least of mental disturbance may be observed in such cases, the first corresponding to what is called lypemania or melancholia, the second closely bordering on dementia, and the third exhibiting an intermittent or periodical character; lastly, that there is in cases of shaking palsy no distinct connection between the loss of intellectual power and the severity of the physical symptoms. I never had a case in Bethlem of insanity with shaking palsy, but I have repeatedly seen cases in which the paralysis was distinctly correlated to mental weakening, and in the main I would accept Professor Ball's observations. I have met with insanity in the children of parents with paralysis agitans.

Insanity connected with locomotor ataxy independently of general paralysis.—Authors have recognised this connection, and I have had several opportunities of verifying the same. At Guy's and St. Thomas's I have seen cases which I am kindly allowed to quote for the purposes of this work, and which are good examples. W. H. J., æt. 38, compositor; no history of neurosis in the family, no excesses, nor over-work; married, with several children. Three years before admission (June 23rd, 1881) he noticed difficulty in walking, some pain in the feet, which increased. Two years before admission he lost all sexual desire and power; his memory was noticed to be failing, and a year later he lost himself, as he described it, for an hour or so. At another time he thought his

wife was against him, and on awakening in the morning he could not remember the number of his children, nor how old he was; he became dull and moping, solitary in his habits, with alternate fits of excitement and depression; he was also disturbed emotionally, and had to give up his work in consequence of his mental weakness. For a time he recovered, and was able to work again, but two months before admission into St. Thomas's he had a fit lasting from five to ten minutes, entirely losing consciousness; the arms, but not the legs, were convulsed. From this time the difficulty in walking became much worse, patellar and plantar reflexes absent, gait markedly ataxic, the left leg being the more affected; viscera and urine normal. On July 1st the patient thought he was dead; was depressed and confused in his mind for several days; two small ulcers appeared on the sole of the foot; left pupil slightly the larger, neither acted to light, but both to accommodation; nothing abnormal in fundus oculi; some loss of sensation over arms, trunk, and legs, impressions being delayed. Towards the end of July he had a rigor, with a temperature of 103·8°; but this did not seem to affect his general condition in any way. In August he was reported as being better mentally, and soon afterwards he was discharged from the hospital, Dr. Bristowe looking upon the case as one of locomotor ataxy with mental disturbance, and not a case of general paralysis; and I must say that, from what I heard, this was borne out, although the history is suspiciously like many cases of general paralysis.

In the next case the symptoms were somewhat different, the patient being younger, and the mental excitement more acute. William R., æt. 28, an engine-fitter; admitted into Guy's under Dr. Mahomed, June 7th, 1883; enjoyed good

health up to the time the present symptoms appeared. For several years he had had trouble with his water, first incontinence and then retention. Five years before loss of sensibility in lower extremities, with inco-ordination; two years later severe abdominal pain, with vomiting; the last two years had lost sensibility in hands and arms. His symptoms on admission were those of typical ataxy, no symptoms being absent; lightning pains in the extremities, and gastric crises being well marked. He was described as an intelligent man, with no dulling of intellect in any way. On July 1st he suddenly became unconscious; his pulse remained good, but his respirations became infrequent; after half an hour he recovered. During the next fortnight he had several similar attacks, in one of which unconsciousness lasted for twelve hours, and temperature rose to 107°, and he was thought to be dying. On the 6th of July he became noisy and threatening; for two nights he was constantly struggling and shouting incoherently; he fancied he was going to be murdered, and that people were sticking red-hot wires into his legs. He became more quiet, but was suspicious, thinking he was going to be poisoned, and refused food; he thought a policeman was walking outside his room, and he appealed to him for protection; he also thought that during the night he had been ripped up. By July 19th he had recovered so far as to admit that he had had delusions and hallucinations. From this time he improved to such an extent that he was discharged mentally well, although ataxic.

In a third case, W., æt. 45, was admitted into Bethlem in 1879, having suffered from well-marked locomotor ataxy for some years, but without signs of general paralysis of the insane. This patient was again seen by me early in 1884, when there was still no evidence of general paralysis.

He was quite unable to stand, and full of fear of persecution. He said his legs were made to be lightning conductors, and his enemies twisted his guts, removed his semen for their own purposes, and introduced cats up his rectum, thus causing his loss of control over the rectum.

The chief symptoms that have been described as occurring with locomotor ataxy are those of suspicion, and it is interesting to be able to trace a direct connection between the morbid sensations of a patient suffering from ataxy with delusions. In the earlier stages of this patient's case there had been gastric crises and lightning pains, and it is not a very extraordinary development for a patient to misconstrue these feelings into torture by poison or by red-hot wires introduced into the limbs.

Insanity with brain tumour.—Any intracranial growth may cause mental disorder, and the chief interest at present of these local changes is in the observance of the clinical symptoms which are gradually enabling the physiologist to localise function, and thus aid the philosopher in his divisions of mind. It is rare to meet with insanity directly depending upon a growth within the skull. Tumours may arise in connection with the blood-vessels, with the membranes, with the bones, or with the brain itself. These growths may chiefly affect the cerebrum or the cerebellum; the growths may be malignant or simple, the most common being sarcomatous, tubercular, and syphilitic. The chief and most general mental symptom connected with all these growths is increasing stupidity; convulsions may be present, with some local paralysis. Among several thousand patients in Bethlem, I have only met, *post mortem*, with one abscess and one exostosis apart from undoubted syphilitic tumours. The abscess occurred

in a woman who had had previous attacks of melancholia, and who had a sister also melancholy. She was admitted to Bethlem acutely maniacal; she passed into a condition of restless excitement, with refusal to take food, and in the end died. On *post-mortem* examination a considerable abscess with thick walls was found spreading from the membranes into the brain. The diagnosis from other insane states must depend on the localising and other symptoms of brain tumour.

Insanity with multiple sclerosis.—It has surprised me that so few cases have been recorded of insanity with the above disease, the only other case I know of, besides the one I am about to record, being that published in the April number of the *Journal of Mental Science*, 1884, by Dr. Gasquet, in which considerable excitement, and symptoms like those of general paralysis of the insane, were present, but with a feeling of physical weakness. The case I record was transferred from St. Thomas's Hospital, as being altogether unmanageable among ordinary hospital patients.

Ernest D., single, æt. 21, sculptor, paternal grandmother insane, uncle dipsomaniac, phthisis on maternal side; first attack of insanity, no cause known; the patient was admitted in October, 1878, having been excitable and irritable for five weeks. It was said that he had had choreic movements gradually coming on for two years, during which time he was a patient at the Queen Square Hospital. When admitted into St. Thomas's Hospital the case was considered to be one of typical sclerosis, having all the peculiarity of head and limb movement which is common to that disease. Soon after admission the excitement and irritability became more marked, and frequently he was either childish or uncontrollable; he screamed and shouted, and was violent to himself and

others. On admission into Bethlem he was described as fairly nourished, of middle height, unable to stand; any attempt at movement was followed by irregular spasmodic movement of all his limbs; he generally lies with his head drawn forward from his chest with a peculiar jerking backward and forward; no nystagmus; speech scanning and all but unintelligible; evacuations and urine passed under him. He was detained in Bethlem till the end of January, when he was discharged weak-minded and paralysed, but with no further tendency to mental excitement. In the end he died in Wandsworth asylum from the extension of the sclerosis.

I have no doubt that a few years ago this case would have been looked upon as one of chorea with mental symptoms; and it was in many particulars like that disease, but there was sufficient evidence to make the diagnosis sure.

There are other convulsive conditions which deserve a passing notice in relationship to mental changes. With chorea, I should say, it is common to meet with some intellectual weakness; and if the cases are extremely severe this may pass into absolute dementia, while in fatal cases delirium and great excitement may be present. Dr. Gowers has collected evidences of the relationship between chorea and other forms of nervous disease; and in Bethlem it is common to find that patients, who have suffered from chorea in early youth, have in later years become subject to hysteria or other true neuroses.

Of 846 patients admitted into Bethlem only six had had chorea, and of these four were maniacal, one melancholic, and one demented.

Various mental disturbances, due to *meningeal* and *cerebral* changes, may be started by head-injury.

Syphilis and insanity.—When treating of the causation of insanity generally, I referred to some of the relationships which syphilis holds to mental unsoundness, and shall here in more detail give the results of my experience.

Syphilis may act morally or physically. It may colour the melancholia from which a patient is suffering, and thus cause him to believe that he is a source of physical as well as of moral contagion.

It may be the starting-point of syphilophobia, which I look upon as a form of hypochondriasis. I have never met with insanity depending on the febrile disturbance of early syphilis.

Syphilis acts (1) by causing gummata; (2) by producing disease of the intima of the arteries; (3) by producing local degenerations; (4) by causing a cachectic condition.

The gummata may lead to epileptiform seizures, which in their turn cause weak-mindedness; or they may produce some local brain change, associated with special disorders and consequent insanity; or they may produce brain changes from affection of the motor areas of the brain which are not to be distinguished from general paralysis of the insane.

The syphilitic disease of the arteries may give rise to apoplectic seizures or to simple dementia.

The cachexia of constitutional syphilis may give rise to various shades of melancholia, ending in some lung disease if not cured.

Of the manifold symptoms which syphilitic brain changes are capable of producing the following may particularly be noted: various paralyses of the ocular muscles; changes in pupillary reactions; various motor symptoms (abnormal action, paralysis) from implication of motor areæ in the cortex; severe headache (meningeal

changes); various spinal symptoms (including changes in the patellar reflex). Psychically, the usual condition is one of progressive dementia.

A point of interest in the relationship of syphilis to insanity is that optic neuritis may give rise to delusions. Thus, a trainer to a large racing stable, who had within four years contracted syphilis, became anxious on account of his impaired vision, and was admitted into one of the London hospitals, where his sight became more obscure, and he became querulous and hard to manage. He believed persons were tampering with his goods and were going to do him some harm. He took the law into his own hands, and struck those near him; his violence and delusions caused him to be sent to Bethlem. He was put under energetic mercurial treatment, and rapidly regained his sight and lost his delusions, and he remained well for at least six years. Here we have a good example of the development of insanity out of natural causes. The patient by training and occupation was very suspicious, and loss of sight made him more so.

Case of insanity due to syphilis.—The relationship of syphilis to general paralysis of the insane was considered under the latter disease.

A fair number of cases of this disease have signs of syphilis upon them, and more have histories of the malady.

A man who had had syphilis five years before was admitted suffering from partial dementia with ptosis, external strabismus, and dilated pupil. No treatment did any good, and for months he steadily lost ground; so weak did he become that it was decided to allow him to remain till his death, and all medicine was discontinued. He began to take food better and gain flesh, and in about another three months was fit for a change,

and in the end was discharged well. During the next four years he had fresh outbreaks of syphilis, as shown by shin nodes, ulcer on prepuce, and ulcer on septum nasi, but prolonged mercurial treatment and Turkish baths fully re-established his health, nothing remaining but the dilated pupil.

I have seen several similar cases, and in two, fatal results have followed. In one no coarse brain lesion of any kind was found; and in the second, thickening of the membranes in the course of the sixth nerve explained the internal strabismus which was present, and a small gumma, resting on the optic commissure, explained the optic neuritis and loss of vision.

Syphilis and general paralysis.—A single man, of thirty, who had syphilis five years before, began to do odd things, and to cause his friends anxiety, in consequence of his mental weakness and foolish and wasteful actions. He was restless, emotional, irritable, and with failing memory. He would not be ruled by his friends, and had to be sent to an asylum. Here he was silly and restless. He decorated himself with leaves and flowers. He was in fair general health, but the tremor of tongue and lips was very marked; his speech was hard to understand. All his reflexes were much exaggerated; there was no paralysis of any cranial nerve.

He remained in this state for two years, then became bedridden, with contraction of the lower extremities; and with the onset of fits and the development of bed-sores he died.

There was wasting of ascending frontal and parietal convolutions, and of the first frontals; excess of fluid; no local tumours; marked grey degeneration of the lateral columns of the cord.

Such cases are young, often single; they always

have exaggerated reflexes, generally with capillary congestion, similar to that seen in cirrhosis, over the malar prominences.

In all such cases anti-syphilitic treatment should be tried, but will fail if distinct symptoms of general paralysis are present.

Syphilis, therefore, may cause general paralysis, and also produce a condition scarcely to be distinguished from it, the distinction when possible being based upon localising symptoms and the results of treatment.

CHAPTER XVIII.

INSANITY OF PREGNANCY AND CHILDBIRTH.

Insanity associated with marriage—With pregnancy—With delivery—With the puerperal state—With lactation and weaning.

Before considering the subject which more especially belongs to this chapter, I shall refer to a group of cases which are not only of grave medical, but also of legal importance. There are cases in which insanity is first recognised soon after marriage. These must be considered from two or three different points of view. First, there are those in whom insanity existed but was not recognised till after the marriage; secondly, those in whom strong predisposition to insanity existed, and the attack was only related to marriage as being its exciting cause (other subdivisions might here be made as to whether the excitement was moral or physical); and in the third group, physical exhaustion, due to great excess, caused a mental breakdown. I have seen both men and women suffer thus, but women suffer more often than men from shock, distress, and the like, while men suffer more from exhaustion.

Insanity before marriage.—In this first group, cases occur which are of the utmost medico-legal interest, and it is now established that nullity of marriage can be declared if it be found that one of the contracting parties was insane at the time of the marriage and unable to understand the nature of the contract. I have elsewhere incidentally referred to the case of Hunter *v.* Hunter, in

which this was decided; but I was called in to see another case with the following history: A girl, whose father was and is insane, became engaged to be married to a very suitable man. Everything appeared to go on satisfactorily till the wedding day was fixed, when the girl began to doubt her affection for her sweetheart. She ceased to superintend her trousseau, and gave up many of her favourite pursuits. Her friends and relations thought that as soon as she got married all would be right; but when married she seemed still more desponding and unlike herself, and refused altogether to allow her husband to have connection with her. In such a case, although with time the patient may become herself again, the husband, in my judgment, would be well advised in deciding to have nothing more to do with her.

Marriage the exciting cause of insanity.—A doctor, after a very successful academical career, went into general practice for some years, and bade fair to succeed in his profession. He became engaged to be married, and nothing in any way peculiar was noticed in his manner till shortly before his marriage, when he was noticed by his friends to be eccentric; but this was at the time looked upon as the result of excitement, and likely to prove of a transient nature. On the day of the wedding his behaviour was still more strange, and his bride was alarmed at his conduct. This state of excitement and mental instability persisted, so at the end of a few weeks a separation had to take place, and soon afterwards the husband was sent to an asylum, where his symptoms became those of acute mania, which passed into a condition of chronic delusional insanity, from which he suffered for years; however, at the end of seven years a change took place in his mental state, and it seemed doubtful whether he might

not in the end become well enough once more to be at large. I am, however, convinced that his wife would have been perfectly justified in trying for a divorce, on the plea of insanity at the time of the marriage.

Insanity due to excess.—In the next case there was no insanity till after marriage, and excess is said to have started the breakdown. T. L., married, æt. 23, actor by profession; strong nervous tendency in the family, but no recognised insanity; no previous attack of insanity. He had been married three days before the attack broke out. It began with great taciturnity, varied by excitement coming on without assignable cause. He had some exaltation of ideas, and at the same time fancied he had committed the unpardonable sin. For eight months he was under treatment, and was finally discharged well and has remained so since. I have met with no good example of insanity started by marriage alone, both as a predisposing and exciting cause. In most of the cases I have seen, the marriage has been the exciting cause of the outbreak, or has simply made manifest the insanity which has existed before.

Insanity following marriage shock.—Emma A., married, æt. 24; epilepsy in family, sober, industrious, had a fit of some kind three days before admission. Her lover attempted her seduction, and this was a great grief to her, and caused a temporary mental disturbance, but she went on with the engagement, and was married. The morning after marriage she was incoherent and wild. She wandered from home, and was taken up by the police. She threatened suicide and she took a violent hatred to her husband. She had auditory hallucinations, hearing her husband's voice chiefly in the right ear. She was nervous and weak, obstinate at times, and at others im-

pulsive. She remained in this state of partial weak-mindedness for the three months she was in Bethlem. I heard she slowly recovered after some months at home.

INSANITY OF PREGNANCY AND CHILDBIRTH.

A very large proportion of acute cases of insanity depend for their cause on these conditions. The non-medical world is perfectly familiar with these cases. There are very many and important considerations to be referred to in this connection, as the disorder has more social aspects than have many other forms of insanity. I shall have to consider the relationship of the woman to her home, her husband, and her child.

There is also the important question of the taint and its transmission to the offspring, and the liability to recurrence of similar attacks.

The question of recurrence, too, is one of great importance; and I am inclined to believe that the discredit which attaches to "cures" of insanity, to a great extent, is due to the fact that so many patients who have suffered from puerperal insanity have other attacks under similar circumstances.

The subject divides itself naturally into three periods, namely, the insanity of pregnancy, the insanity of delivery (which again must be considered as insanity commencing with delivery, that immediately following delivery, and insanity coming on a few weeks later), and the insanity of lactation, or, I would prefer to say, the insanity occurring during lactation or at the period of weaning. Of these periods that following delivery (puerperium) is the one in which insanity chiefly occurs.

I would premise by saying that, as far as the symptoms are concerned, there is absolutely

nothing characteristic in the form which the insanity assumes; and that with puerperal conditions you may have mania, melancholia, or dementia; and the very term puerperal *mania* is misleading. I am of opinion that inheritance plays a very important part in puerperal insanity.

1. Insanity of pregnancy.—These cases are not nearly so common as those following childbirth. They are divisible into two classes: those in which insanity comes on in the earlier months of pregnancy, and those in which the derangement occurs during the later months. It must be remembered that it is quite common to get exaggeration of the ordinary reflex nervous symptoms of pregnancy in neurotic patients; that, in fact, longings of pregnancy may pass beyond the limits ordinarily met with and become insanity. I have seen cases in which extraordinary appetites have been connected with pregnancy in neurotic subjects; and what is more, I have seen the offspring of mothers who have suffered from these unusual conditions themselves later develop insanity.

Insanity of pregnancy may occur with a first pregnancy, or, what is more common, it may occur with a later one; and I am inclined to believe that the following is the more common mode of production of such cases: A woman of insane family becomes pregnant, and with the pregnancy has some marked nervous peculiarities, which pass off and are forgotten till after delivery, when they reappear; or when sleeplessness, irritability, and change of character usher in an attack of ordinary puerperal insanity. A second and third pregnancy, occurring within short intervals, are each followed by attacks of insanity. But with the fourth and fifth pregnancy the eccentricity of pregnancy becomes undoubtedly an insanity, and the patient, during the earlier months of preg-

nancy, suffers from either maniacal or melancholic symptoms, which may pass off, to reappear after pregnancy, or they may continue steadily through the pregnancy up to delivery, and beyond it; the patient seeming to become more and more unstable in consequence of preceding attacks of insanity, till at last a very much less force is required to upset the balance. One such case I have known to become ultimately so little able to resist causes of depression, that insanity, at first following delivery, next occurred with pregnancy, and then followed a simple inflammation of the tonsils. It is noteworthy that more disturbance, both of body and mind, may occur with male than with female pregnancies; and cases are recorded in which chorea or epilepsy has followed only when the children have proved to be males; and although no general law can be deduced, yet it is interesting to find that popular feeling in this case coincides with medical experience.

Cases are also recorded in which insanity has passed off when conception has taken place; and I have met with such cases as the following: A woman, having suffered from puerperal insanity, and having been secluded for some months, lost all her excitement, but became apathetic, and might be described as suffering from partial dementia. Nothing that we could do in the asylum roused her or made her anxious to return to her home and family; but by sending her home and re-establishing home relationship, she became rapidly better, in association with fresh pregnancy.

The insanity of pregnancy may assume various forms, but in my comparatively small experience of such cases, I should say it was generally melancholic with hypochondriacal symptoms, or with misinterpretation of the ordinary signs of pregnancy. Thus, a woman suffering from insanity of

pregnancy believed that the vomiting from which she was suffering was due to poison; acting on this belief she persistently refused food, and accused her husband of wishing to get rid of her. If I see a case in which the symptoms of insanity have slowly developed during the first two or three months of pregnancy, and have been directly connected with excessive vomiting, neuralgia, and sleeplessness, I generally give a favourable prognosis, considering that the patient will probably re-establish her nervous balance by the end of the fourth month; and in many such cases I have seen the patients make a perfect recovery, and pass through the puerperal state undisturbed. Patients of this class may break down again after delivery, or they may have similar attacks with succeeding pregnancies. But, on the other hand, I have known cases who have had no second attack at all. As to treatment, I would advise the ordinary measures recommended for vomiting and neuralgia in pregnancy; although I have failed myself to do good with such drugs as cerium, hydrocyanic acid, or morphia, I have found attention to the bowels and to general hygienic measures of much greater service.

The question of induction of premature labour has been referred to me by several obstetric physicians, and I have uniformly said that I have never yet seen a case which justified its practice, for in the first place the operation will probably have no effect in the way of cutting short an attack of insanity, and it adds somewhat to the dangers to life incurred by the patient. I have seen miscarriages occur in the insane without any mental gain following them, and, therefore, the only justification to my mind would be the destruction of a child that ran a very great risk of being an idiot.

Insanity coming on during the later months

of pregnancy is more common than that last described, and is generally associated with melancholia. Again, there are commonly ideas of poison in the food, dislike of husband, suspicions and general dreads, apathy and negligence of personal appearance and of home duties. Whether only a coincidence or not I cannot say, but I have seen general paralysis of the insane occurring in pregnant women, and I shall have to record in brief one or two such cases.

Example of insanity with pregnancy.—Elizabeth K., married, æt. 32, has had three children, the youngest being sixteen months old. She was admitted to Bethlem in August, she then being five months pregnant, with symptoms of insanity which had lasted less than one month. They came on suddenly during one night, when she woke up and said that she had crucified Jesus Christ. She attempted to destroy her life by throwing herself from the window. She thought her children had already been killed; had hallucinations of sight and hearing; believed there were faces at the window, and that voices were audible outside her room; she was in constant dread of some terrible catastrophe which was about to happen. After admission she was noticed to be dazed and confused, with loss of memory. This condition of suspicion and dread passing into weak-mindedness persisted till she was sent away to be delivered. Before delivery she appeared to regain her mental soundness, but six weeks later, having become physically weak, she again became melancholic, and had to be re-admitted into Bethlem, where she rapidly recovered.

Insanity with early pregnancy. Recovery in about five months. Delivery and maintenance of health.—Louisa C., æt. 24; no insane relations; second attack of insanity. First followed child-

birth. Present attack began in June (she was delivered in the following March). She became restless and wanted to leave her home. She was emotional and quarrelsome; she destroyed her clothes, and believed her husband was very rich. On admission into Bethlem she was noisy, silly, and given to causing mischief; she had ideas that her child had been poisoned. She became more quiet for the first time in September, but again became silly. In October a marked improvement took place, which continued without relapse. She was sent out on leave, was delivered naturally of a healthy female child, and was discharged recovered.

In the following case we have a very good example of the various conditions connected with *puerperal insanity* and the *insanity of pregnancy:* F. M., married, æt. 21; paternal uncle epileptic, great aunt insane, one brother epileptic, another suffered from insanity produced by drink, and the father was an extremely excitable man. The patient had suffered from hysterical attacks, and had also had an attack of chorea during pregnancy. She had a premature confinement with her first child, but did not develop insanity then. When admitted into Bethlem she was pregnant two or three months. She was then restless, violent, and at times accused herself of unfaithfulness. There were peculiar choreic movements of her limbs. She resisted food and medicine, and said her food was poisoned. At this time she had the morning sickness of pregnancy. For some weeks she was emotional, violent, and destructive, refusing her food. Later, about the fourth month of her pregnancy, there was much general improvement. Her affection for her husband returned, and she began to occupy herself in her ordinary ways, and by the fifth month of pregnancy was well enough

to go home on leave, and later was delivered of a female child after an easy labour. Within four days of delivery she became noisy and violent again; she was taken back to Bethlem, where she went through another sharp attack of acute mania, and had to be fed with the stomach-pump for some days. Within two months of her delivery she was again convalescent, and was discharged recovered, and she has had several children since without any recurrence of insanity. Fortunately domestic and other conditions were favourable for her.

In the next case insanity was connected with the *early months of pregnancy*. Emma N., æt. 33, sister likewise insane; first attack, following domestic trouble. It came on two months after she had ceased to menstruate from pregnancy. She became strange in manner, and took no notice of her children; she refused food, and would not speak; tried to strangle herself with a towel. I may say that this pregnancy followed immediately on her recovery from her last delivery, she suckling at the time. She thought men were waiting for her in the passage to take her away; she was subject to hallucinations of hearing, and her physical condition was one of extreme weakness. During her stay in Bethlem, rest, regular diet, and quiet caused her to lose her delusions, and she was discharged sufficiently recovered to pass through her confinement at home.

General paralysis associated with pregnancy.—That with general paralysis the bodily functions may be healthily performed in many respects is noteworthy. The general paralytic may appear for some time strong, stout, and lusty; I have known more than one general paralytic father beget children. I have now to note cases in which general paralysis occurred in pregnancy. In one case the patient was admitted into Bethlem preg-

nant, with fully established general paralysis. She was delivered of a living child, and once more, while at home, became pregnant. In the other case the symptoms of general paralysis occurred about the same time. Procreative power may remain in general paralysis till quite a late period of the disease, and pregnancy may occur, with its fearful risk to the children.

A. B., married, æt., 33, housewife, mother said to have died of "brain-softening"; the cause of the insanity stated to be anxiety and over-work. She had had two children, and it was a question whether her mental condition had been quite the same during the past two or three years. When admitted into Bethlem menstruation had been absent for two months, and it proved that she was pregnant. She was restless, constantly muttering to herself, irritable, talkative, and incoherent; muscularly weak, with great tremor of facial and lingual muscles; speech drawling and indistinct, with general hesitation; loss of power in lower extremities and bladder. This condition of mental and physical weakness progressed till she was discharged to be delivered elsewhere, after which time the mental symptoms became less marked, but sufficiently clear to verify the diagnosis.

Temporary relief of insanity may occur during the act of delivery. Two distinct points deserve consideration. First, the insane mother may be delivered unconsciously, there being anæsthesia, so that a weak-minded woman may give birth to a child, and it may be found smothered in her bed, and yet she may truthfully say she did not know of its birth; secondly, a patient who has suffered from insanity of the later periods of pregnancy may, during labour, appear to wake up and to appreciate everything about her, only to relapse after delivery is fully accomplished.

2. Insanity of delivery.—With delivery one has frequently seen considerable mental disturbance as a purely natural and physiological circumstance; but beyond this a condition may arise more or less of temporary derangement, the pain of labour starting a condition of mental instability which may become fully developed insanity; and just as, on the one hand, I referred to a case in which the pain of labour was associated with temporary return of reason, so the nervous shock may, on the other hand, upset the balance. Such cases are rare, and have nothing special in them beyond the causation.

3. Puerperal insanity.—The disorder assumes many forms, so that we may have mania, melancholia, acute delirious, confusional and catatonic states; or dementia. The maniacal attacks are those which, as a rule, come on soonest after a delivery. It has been said that there are critical periods, and that there is special danger with the onset of milk, with the recurrence of the time representing the menstrual period, and later, that weaning is a source of special danger; but I have failed to find any specially critical periods.

Before considering the causation of puerperal insanity more fully, I would call attention to the period of delirious excitement which may come on during the second or third day after delivery. A *mania transitoria* may arise suddenly and pass off as quickly; the patient will have a flushed appearance, with a full pulse, and active, talkative delirium, with hallucinations, in which she may cause damage to herself and to her child. This state of excitement may be frequently subdued by the administration of a purge and a narcotic at night. Medico-legally this condition is of great importance, because during this period of excitement the mother may commit infanticide, and not

only be guiltless as far as responsibility is concerned, but may have not the smallest recollection of what has taken place.

It is generally accepted that physical causes play a greater part in the production of this variety of insanity than do psychical causes. Inheritance is of great importance as a predisposition, and in my experience it is common to find the inheritance directly transmitted; that is, along the female side. I have known both mother and daughter suffer from puerperal insanity. When child-bearing begins late in age there is an increased danger. Any specially depressing causes, such as prolonged suckling, followed by another pregnancy, or rapidly recurring pregnancies, delivery of twins, and the like, are noteworthy in the causation. I do not find, in my experience, that instrumental labours are specially dangerous. The causes in most cases are multiple, and have often been acting some time before delivery takes place. Thus, during pregnancy, there may have been a drink-craving which has been yielded to, and this has predisposed to an attack of insanity. Other physical causes, such as ulceration or abscess of the breast, may have had a share. Insanity, too, may follow eclampsia, although this is rare. I believe, however, that it is not very uncommon to meet with violent acute mania, associated with septicæmia, and a few patients die every year in Bethlem in whose cases I believe septicæmia has had a share in the causation of the disorder. It is noteworthy that labours in which chloroform has been administered have, in my experience, several times been followed by attacks of insanity in patients who have had other children before and after, born without anæsthetics, without attacks of insanity.

As to the psychical causes, grief, worry,

anxiety, and the like, are the most effective. Fewer women seem to become insane after the birth of illegitimate children than might have been expected. Dr. Clouston shows that in Scotland illegitimate births give rise to an excessive number of cases of insanity. In some cases seduction and the birth of natural children act distinctly as causes. Desertion or death of husband, or loss of the child, may act as severe causes of depression, which may pass beyond a natural limit. The above are the more common causes, which may act separately or combined.

The ordinary course of an attack of puerperal mania is as follows: A patient, having had no bodily trouble to excite the attention of her friends, becomes sleepless, but without depression at first; she seems ill at ease, and then may complain of some uneasiness in her head; next she complains that she is afraid she is going to lose her reason. The sleeplessness, however, is the most marked early symptom, the milk and lochia often being both natural; she takes a dislike to her husband and perhaps to her child, making trifling complaints against one or the other. She often complains of unpleasant smells, and becomes irritable with all around her. Next she complains of her food, and may altogether refuse to take it. This period of sleeplessness, with irritability and some depression, is followed sooner or later by excitement, chattering, incoherent, blasphemous or amorous talk, and then the attack of mania is fully developed. There is nothing special in its form, but there are a few symptoms which are more commonly present than perhaps in other cases of mania, such as sleeplessness, anxiety, aversion to relations, erotic tendencies, mistakes of identity, with hallucinations of smell and taste, and refusal of food.

M. B., married, æt. 28, four children, no insane inheritance, the last confinement three weeks before admission, symptoms coming on one week after delivery. The first marked symptoms beyond sleeplessness were peculiar ideas about her food, antipathy to those dear to her, violence in language, destructiveness of clothing, dirtiness in habits, and blasphemous and filthy language. She had hallucinations of sight and hearing; said she saw her babies in heaven, and that she was bewitched at night; complained of nasty smells; thought she was the Virgin Mary; and was generally obstinate and incoherent. For some time she remained in much the same condition, but at the end of five months she was sent to the convalescent home, and at the termination of another month was discharged well.

The next case was in many respects similar. Isabella M., married, æt. 26, no insane relations. This was her second child. The first symptoms followed between the second and third week after delivery, when she became sleepless and talkative; talkativeness is a very common adjunct to the sleeplessness. She rapidly became worse, her language growing violent and obscene. She had delusions, and thought she was the mother of God and Mary of Bethany; she mistook people at times; she refused food; she called her husband by various names, at one time thinking he was Christ; she had a great dislike to her child; and she was fed with the stomach-pump. On admission she was suffering from a typical attack of acute mania, and this condition of excitement continued without any alleviation for five months, when, after menstruation had been re-established, she recovered completely and was discharged well, having been under observation six months.

There are some special points in these cases

requiring consideration. First, as to the milk. Milk may be suppressed at the time of the outbreak; it may continue after the development of mental symptoms, and in such cases there is great danger lest the breasts should be neglected and abscesses form in consequence of the whole of the attention being paid to mental symptoms. In Bethlem friction of the breasts with salt or with castor oil is more frequently adopted than the use of belladonna, and with satisfactory results. The lochial discharge may be suddenly arrested in some cases, especially in those in which there is suspicion of septicæmia; but in an ordinary case of puerperal insanity the lochial discharge continues normal. I have known both milk and lochia suppressed, both present, or one present and the other absent, during attacks of insanity.

Puerperal insanity is supposed to be a specially curable disease, but, in my experience, a considerable proportion of the cases of acute mania die, bearing out what I have elsewhere said, that mania associated with surgical or other troubles is a serious bodily disease. A very large proportion undoubtedly do recover, and of these a considerable number have recurrences of the disorder; nor does it follow that means taken to prevent having children will hinder attacks of insanity. Besides death and recovery, I have to record that a large number of cases remain either permanently insane or permanently weak-minded after a single attack of puerperal insanity, and therefore, even in a first attack, great caution must be used in giving a prognosis. A case of acute puerperal mania, having lasted from two or three to eight or nine months, will often become healthy in appearance but weak in mind. Nourishing diet, stimulants, and the like, have produced

general health, but dementia remains, the patient taking little or no interest in her surroundings, expressing no desire to return home, and seeming indifferent to husband and children. Such cases, as a rule, will be found to be suffering from amenorrhœa, or if not, the prognosis is grave in the extreme. I always look upon the consecutive weak-mindedness of puerperal mania as being curable while menstruation is absent, but when physical health is re-established without mental gain the prognosis is bad.

It is of the utmost importance that such cases should be sent home on trial before all chance of recovery is at an end. I believe that the re-establishment of home relationships is about the best means of cure for many of these cases. The *treatment* of a case of acute puerperal insanity is the same as that employed in acute mental disorders (mania, melancholia) in general. The guiding principle must be to give rest and support. Rest must be procured by general measures and not by means of narcotics. Chloral and bromide of potassium, morphia, and henbane have been tried and failed; they rarely secure sleep, and, if continued, leave the patient more unstable and farther from health. If cases like these are treated at home, it will be necessary to make use of one or other narcotic, and I generally advise a frequent change in the remedies, so that a patient is treated with bromide of potassium one night and chloral, sulphonal or paraldehyde the next. With sleeplessness, beef-tea, a glass of spirits and water, or a bottle of porter may give rest when narcotics fail; and there is no reason for any dread of stimulants in mania. The friends and certainly the children should remain out of sight of the mother. The room should be kept cool, bright, and well

ventilated. The bowels should be kept acting regularly, all sources of local irritation about the vagina should be removed, and, as soon as the patient is strong enough, bathing should be made use of. When strong enough to get about, the patient should have fresh air, out-of-door exercise, and a change to the seaside if possible.

One other question of treatment remains, as to which class of patients should be sent to asylums, and when. There is a very strong feeling against sending a young married woman to an asylum when the attack follows a first child, the feeling being natural that the child or children will suffer socially, and that the mother herself will look forward with dread to any future confinement. If the friends have ample means, if their home is in a healthy district, and if the doctor can see the patient twice daily at least for the first few weeks, it is possible to treat almost the most serious case at home; but any of the above conditions being wanting, it will be found well to remove the patient to an asylum. The chief dangers arise from refusal to take food, exhaustion from untrained attempts to keep the patient quiet, and from wild ungoverned actions depending upon delusions in reference to husband or child.

To sum up on these cases of puerperal mania, they are mainly curable, but some die and others remain weak-minded. The treatment must be supporting and calming; the smallest quantity of narcotics and the most food possible must be given. Although some must be sent to asylums, they must not be kept under control too long, but should be sent home as soon as symptoms of danger have passed. It is well to advise caution in regard to other pregnancies, yet it does not follow that a patient will keep well if she have no more

children, nor does it follow that because she has had one attack of insanity she will have attacks following the birth of every child.

Besides the attacks of mania there may be attacks of *melancholia*, the onset of the disease being in every respect similar to the attacks of mania; sleeplessness, anxiety, and dread being followed by delusions in reference to husband or children, and associated with hypochondriacal or similar symptoms. As I said before, melancholic symptoms generally, but not always, come on later after delivery than attacks of mania, and in the cases under consideration melancholia is the rule, mania the exception.

Harriet K. B., married, æt. 26, had three children, the last born three months before her admission into Bethlem. Her mother suffered from insanity, associated with cancer. The first symptom, after sleeplessness, was refusal to take food. She said she had eaten too much food, and was therefore lost; that God would never forgive her, and that there was no passage through her bowels. Her habits were said to have completely altered. She no longer took interest in her children, nor would she go out of the house. These symptoms came on insidiously without any special exciting cause within a fortnight of delivery. She was suicidal, and represented very well the type which may become dangerous; for patients of this class will desire death not only for themselves, but also for their children. Within a fortnight of admission she began to take her food freely; but her mental symptoms varied so that she would eat well for a time, and then refuse food; at the one time being less influenced by her false ideas than at the other.

She became more actively troublesome about five months after admission, and caused anxiety

from her rapid emaciation. It was found she was in the habit of eating her food and then making herself sick. She was carefully watched, and this being prevented, she steadily improved, and was well mentally at the end of six months. After her recovery she gave an account of her feelings, of which the following are the most important details:

"Mrs. K. B.—Has been ill since birth of child (third), 18th of July last. From that period until the present time entire cessation of courses. About fourteen days after confinement felt that 'God would not forgive her,' 'that she was lost.' Extremely depressed. Thought she had 'committed suicide and every crime under the sun.' Did not hear voices, but 'felt that something told her to go and hang herself.' She procured a rope for that purpose, but was prevented from carrying out her design by her friends. Was extremely sleepless all this time. Refused food, thinking she would starve herself, but yielded when pressure was used. She had great repulsion to husband and children, which she says was a great change in her sentiments, as she always was much attached to both. She had no desire to injure the child last born. Gives a perfectly clear and lucid account of her condition, and appears to have an active remembrance of her delusions."

In some cases after delivery the patient slowly becomes apathetic; she takes little or no notice of her child, and may be slightly emotional; her indifference becomes more and more marked, till it is recognised as a mental disorder. She neglects her personal cleanliness, and has to be tended like a child; this condition may slowly pass off, or it may be but the early symptoms of an incurable state of dementia.

4. Insanity of lactation.—Insanity of lactation is a variety of insanity in which exhaustion seems to play the chief part. Some women suffer severely from weakness whenever they attempt to nurse their children; but the cases which one sees in an asylum very frequently are those in which lactation has been prolonged to an unhealthy extent, with the idea that thereby pregnancy would be avoided. In several cases I have seen the prolonged lactation produce all the evils of weakness, yet succeeded by a pregnancy, and thus not only has there been physical depression, but moral worry in addition. The term over-lactation must be looked upon as purely relative, and some writers would regard all cases of insanity coming on two or three months after delivery as cases of insanity of lactation, by reason of the similarity of the symptoms. The number of cases in which the insanity was distinctly traceable to lactation has not been numerous in my experience, and I have seen quite as many cases associated with pregnancy as with lactation.

The symptoms naturally divide themselves into bodily and mental. There is commonly pallor with a peculiar chlorotic appearance, giddiness, indigestion, with uneasy feelings at the top of the head, shortness of breath, and complaints of palpitation, generally associated with sleeplessness. Mentally most of the patients are depressed, dreading some harm for themselves or their children, irritable at times, with delusions of unworthiness, and with hallucinations of sight, smell, and hearing. These cases frequently get well. I expect an ordinary case of this kind to take from three to six months in an asylum to recover, and I believe the sooner one is able to send such cases to the seaside, or away from towns, the better. Various forms of stimulant and tonic should be given. Iron

is beneficial, and partly digested foods or cod-liver oil in some of its simpler forms, or maltine, will be found useful, the sleeplessness being treated by food rather than narcotics. Such attacks may recur, and it is of special importance to get the general health re-established before any fresh pregnancy occurs. The following case is a fair example of the ordinary symptoms met with in this disorder:

E. M., married, æt. 29, mother and two brothers insane, sister died of phthisis. The patient has had rheumatic fever; this is the second attack of insanity, the first being four years ago; she has had three children, the youngest being fourteen months old. Since the birth of this child she has not menstruated, but has suckled up to the time of her insanity, which came on one month before admission, when she became very excitable, and for a time was maniacal, having a tendency to be erotic; she had hallucinations, and said she had seen the devil, and heard cats when none were about. She mistook people, and was coarse and violent in her language. Within two months of admission she had a slight attack of rheumatism, followed by mental improvement, and from this time her general health became better, and she recovered, being discharged three months after admission.

In the next case the symptoms were those of melancholia, with active expression, followed by recovery. Florence B., married, æt. 20; maternal uncle insane. This attack followed her first confinement, and came on with dulness and depression four months after delivery. She became steadily more dejected, not speaking nor taking any interest in things about her. When pressed she said she had lost her soul, and that she saw strange figures in her room; that she had given her child away,

and that her husband had deserted her. She feared ruin, and was concerned about the costliness of everything, dreading she would be unable to pay. She refused her food, and was on several occasions noisy, as well as sleepless at night. She tried to force her way out of the window, and had to be placed on the ground floor. For some time no change took place, her aspect being one of extreme misery, and her face covered with indolent acne, which she pricked, causing her face to be sore and unhealthy-looking. Three months after admission her appetite began to improve, and she slept better. From this time her interest in her surroundings re-developed, and after one month's leave she was discharged recovered, seven months after admission, and eight months after the beginning of the attack.

The above cases, occurring in young women, are examples of the curable form; but if there had been several previous attacks of insanity, and if the patients had been older, the prospect of cure would have been much less, such patients passing into states of chronic melancholia or of weak-mindedness.

CHAPTER XIX.

EPILEPSY AND INSANITY.

Epilepsy a neurosis allied to insanity by origin—Epilepsy producing insanity—The frequency not the severity of the fits of most importance—Brutality of epileptics—Masked epilepsy—Other forms of loss of identity—Pathological anatomy—Treatment.

Epilepsy and insanity.—The days when epilepsy was considered to be a disease apart from insanity have passed away. Epilepsy is commonly an inherited neurosis, and is characterised by a strongly marked periodic tendency, the cause of which is unknown. We, at present, do not know what starts the discharge; but whatever the condition is, there seems to be a uniformity as to its origin, for in the great majority of cases the symptoms repeat themselves exactly; and in referring to what may be called mental epilepsy, the chief characteristic will be found to be the absolute uniformity of the symptoms. However, we are not now concerned with the production of epilepsy, only finding space here for the record of mental symptoms which may be distinctly traced to the epileptic conditions. By that I mean not that the epileptic discharges produce all the mental disturbance, but that the conditions which give rise to epilepsy may also give rise to mental as well as motor disturbance. In some cases the change of balance or change of nutrition which is represented by an epileptic fit acts directly in producing mental disturbance.

Nearly all epilepsy tends naturally to weak-mindedness, this depending rather upon the fre-

quency of the fits than upon their severity. Epilepsy is extremely closely allied to ordinary insanity, and is but one branch of the nervous tree. I have not only met with members of the same family suffering from epilepsy and insanity, but I have seen one twin sister insane and the other epileptic. The effect of the fits depends also upon the age at which they commence; many cases of imbecility and idiocy result from the onset of fits in childhood. The chances of mental implication also depend upon the nervous history of the family, as well as on the cause of the disease, cases of so-called idiopathic epilepsy being more hopeless than those cases in which some ascertainable and treatable cause can be found. It is only necessary to say further of these cases, that simple *petit mal* (which is more destructive to the mind than *grand mal*), frequently recurring, may be found so to affect a young man or boy that he is no longer capable of being educated with persons of his own age; he becomes solitary, and may damage his prospects still more by acquiring habits of self-abuse, the fits continuing and probably becoming more frequent, the mind also suffering; the patient may become weak and silly, living an organic life, but without power of further development or cure. The above is one of the simplest cases.

Not uncommonly epileptics, with general intellectual degeneration, either develop or discover low brutal habits and tastes, becoming degraded in aspect and beastly in habits. In large asylums such patients not uncommonly have to be carefully watched, because their evil tendencies lead them to commit unnatural offences or violent bloodthirsty acts. The recurrence of fits with these cases may, as we shall presently see, be the starting point for fresh excitement, or they may tend to further

destruction of mental power till the patient is left a helpless paralysed dement. In some cases melancholia and hypochondriasis are connected with the development of epilepsy, and such cases may be suicidal and require the utmost supervision. Patients, whether suffering from ordinary dementia, maniacal excitement, or melancholia, may live for considerable periods. The causes of death are not uncommonly accidental, and many ingenious contrivances have been designed to prevent suffocation in the fit, but nowadays the Commissioners insist upon special epileptic wards, with low beds, and an attendant constantly in the dormitory, so as to be able to attend to any patient in fits. Pillows of stretched perforated material have also been suggested as enabling patients, although turned on the face, to breathe.

The next consideration is the relation of epilepsy to certain acutely maniacal outbursts. It is common to meet with cases in which, immediately before or immediately after a fit, an outburst of uncontrollable fury of the most destructive kind takes place. Such attacks are among the most distressing accidents of a large county asylum, patients suffering in this manner being completely untrustworthy and excessively dangerous. Unlike the insane in general, the chronic epileptic insane of an asylum tend to associate and to concoct plans for attack or escape. Other features by which the epileptic insane of asylums are recognised are the following: Degraded facial aspect, scars (from falling on face), religiosity (so that there is much reading of the Bible, with employment of religious phrases and canting expressions), the bringing of false accusations against attendants and others, irritability, quarrelsomeness and querulousness. This querulousness may be but the initial symptom of an outburst of epileptic fits. In these cases the

change of temperament gives some little warning, but in others there may be no such indication. In the more common cases a patient falls down in an epileptic fit, and remains unconscious for a longer or shorter time, the unconsciousness being often followed by a sudden return to consciousness, marked by excessive destructive violence, utter regardlessness of personal danger, and an extreme outburst of fury which can only be realised when it has been seen. These cases are, without exception, the most dangerous of all lunatics, and the complete oblivion which surrounds their acts of violence renders them striking examples of the way in which, automatically, acts of extreme complexity may be performed without the actor having the faintest recollection of the past.

Subsequently to a series of fits, varying degrees of *stupor* are often seen, lasting a few days.

Masked epilepsy (l'épilepsie larvée).—This condition is one which till recent years was not recognised in England, and even now it is not uncommon to meet with those who have doubts about the reality of the condition. The essentials are loss of recollection of whole continuous periods in life, there being what may be called a double consciousness, and it is interesting that a romantic description of such a case should form the basis of George Sand's "Consuelo," the hero of this story being, during one part of his life, completely unconscious of what he has done in the other. The condition is closely allied to the sleep-walking state. That this condition is allied to epilepsy has been shown by French authors on the following grounds: First, it occurs in neurotic subjects; next, it may be associated with epilepsy in one way or another; thirdly, it may alternate with epilepsy and take its place; fourthly, it may end in ordinary epilepsy; and lastly, it may be relieved by

bromide of potassium. The details of these cases are only to be fully seen in *Les Annales médico-psychologiques*, and the cases there recorded are so extraordinary that it needs a very considerable personal knowledge of the authors to allow one to accept their statements. Patients are represented as being unconscious for days together, and acting in peculiar but highly organised ways. Some of the simpler cases are less difficult of comprehension. Thus, a lady of culture and refinement suddenly and without warning turns pale, becomes fixed in her gaze, and begins to make use of a string of obscene and blasphemous phrases; at the end of a few minutes she ceases, flushes, appears confused, and in no way remembers what she has said and done. Attacks of the same description recur at irregular intervals, always associated with pallor and the use of similar obscene and blasphemous language.

In other cases unconsciousness, with a tendency to run, to strike, or to perform some simple mechanical act, occurs. In my experience I have only met with three such cases. In one a man would, from time to time, lose himself and wander from home and find himself long distances from where he started without knowing how he got there; and in another, a man with strongly insane inheritance caused great distress to all his friends as a result of his apparent disregard of consequences. Three separate times had he been started in life with good prospects, but each time he disappeared without rhyme or reason, to be discovered in some part of the Continent in a state of poverty. He professed unconsciousness of what had taken place, and I believe with truth. In his case he also suffered later from an attack of insanity.

It is important that this condition should be recognised, but it would be a dangerous thing

generally to allow a person accused of crime to plead epileptic unconsciousness. The question has been repeatedly suggested as to how much or how complicated the acts of such a person may be. For instance, would it be possible for a person suffering in this way to steal only valuable things, or would he, if affected by a desire to pilfer, take everything that came in his way?

One case recorded in French literature showed how general this pilfering might be. A man of education and position, when under the epileptic influence, would collect everything that came in his way, and the result showed that he would steal things altogether undesignedly, such as a baby's feeder and a cigarette case, things useful and things useless. I should therefore hesitate before admitting that a patient accused of stealing only valuable things did this as an epileptic.

Another case was that of W., single, aged 28, family history good; intemperate; as a result of drink and injury to his head had a series of epileptic fits, followed by melancholia, in consequence of which he had to be sent to the county asylum. While there he was depressed and tried to kill himself. At times he appeared lost, and did odd things; thus, he would whiten the fire-grate and blacklead the hearth.

He varied a great deal, but towards the end of the fourth year he recovered, and was discharged sane, but still subject to fits. He remained well over a year, but after his discharge he was subject from time to time to fits, which were preceded by an aura, which was of sufficient duration to allow him to undo his necktie and collar. These fits recurred at irregular intervals. He was teetotal, steady, and industrious. On one occasion, while he was walking along a lonely road, he felt a fit coming on, and undid his necktie and collar; he

then lost consciousness. On recovery, he found himself lying by the roadside, at a distance of two miles from where he remembered undoing his neck-tie. Other evidence was at hand to show that he had first had his fit, and then had, in a state allied to somnambulism, got up and walked along the road till the post-epileptic sleep came on, when he lay down or fell by the roadside, and slept till he was again well.

His walk was said to have been staggering, so that those who met him believed he was drunk. He was perfectly unconscious during and after the walk. After a period of freedom he had once more to be sent to an asylum.

Other forms of loss of identity.—From time to time notices occur of persons, often belonging to the educated classes, who have fallen into the hands of the police, and have been quite unable to give their names or their addresses. Such persons may be epileptic, but in some cases this is not so. Though very hard to prove, it has appeared to be at least possible that certain hysterical girls may be without any memory of their acts; in many cases the wild and silly acts of hysterical girls which give rise to haunted-house and ghost stories are remembered by the agent, though this may be denied. In somnambulism the most complicated acts may be performed quite unconsciously; most somnambulists are neurotics. After slight concussion of the brain I have known a state of automatic unconsciousness to follow, as in the following case. A man was thrown from his bicycle, and though he at once got up he complained of giddiness, and asked a policeman to take care of his cycle while he walked home; he gave his correct address and behaved normally. He went home and told his wife of the accident, and went to bed; he was rather restless for some hours, but then awoke with no

recollection of the accident or of anything connected with it.

In another case a young man, after some hours' exposure to a very hot sun, lost himself, and could give neither his name nor his address; in a few hours he recovered his memory, but could give no account of the last period. After this he was for a week or two in a strange state of mental confusion.

In both these cases there was a strong family inheritance of neurosis. I have seen similar losses of personality associated with the onset of febrile disorders. In all cases of asserted loss of identity it is necessary to exclude alcoholic excess and the secret use of drugs.

The medico-legal relationship of insanity will be considered later, but here I would say there is no doubt that a very close connection exists between the neuroses, epilepsy and criminality. Epilepsy is not only a disease commonly feigned in gaols, but is really common among criminals.

Pathological anatomy.—The morbid conditions found in the brain are those usually described in connection with ordinary idiopathic epilepsy of long-standing, namely, increase of the glia, especially the spider-cells, small-cell infiltration of the vessel-walls, atrophy and pigmentation of the nerve-cells, upon which glia-cells are found (? phagocytosis).

Sclerosis of the Ammonshorn is frequently present. The changes found throw no light on the problem of pathogenesis, and may be merely secondary. Individual attacks would seem at any rate sometimes to be due to toxic agencies (auto-intoxication).

Treatment.—It would be wrong not to speak of the treatment of the insane suffering from epilepsy, though their cure is hopeless at present.

I have pointed out that in county asylums they are specially placed so that there shall be the minimum of risk of their becoming asphyxiated when in fits; but besides this, many other precautions must be taken. They must be prevented from falling into fire or water, and it is well to provide them with head-gear, resembling in many points a thick turban, so that if they fall on their heads little or no harm may result. On the onset of a fit the usual precaution as to freeing the neck from clothing must be taken.

The food should be cut up fine, or, in severe cases with frequent fits, even minced. The patient's life should be quiet, and regular as regards meals, sleep, and occupation. This can best be provided in an epileptic colony (which, however, is unsuitable for cases of great excitement or violence). Stimulating food and drink are to be abstained from; thus, alcohol, strong coffee or tea, and meat, should be strictly limited. Eggs, milk, butter, vegetables, fruit, and farinaceous food are suitable. Food difficult of digestion is to be avoided. Some observers have obtained good results by withdrawing chloride of sodium from the diet, whereby it is maintained that the effect of the bromide salts is enhanced. Constipation is to be prevented; its evil effects in precipitating fits are well known to asylum attendants.

Drug-treatment still consists in the administration of the bromides of potassium, sodium, ammonium, or strontium, singly or in mixture: the fits may by these means be controlled. The unpleasant symptoms resulting sometimes from the use of bromides may be in some cases avoided by the substitution of Merck's bromipin, which is put up in gelatine capsules as a 33 per cent. solution. In the *status epilepticus*, enemata of chloral hydrate, or amylene hydrate, may be given, or

chloroform lightly applied for inhalation. Venesection is sometimes employed. In maniacal excitement, as seen in asylums, chloral and bromide mixtures by mouth, or hyoscin subcutaneously, may be necessary, and for such cases a padded room may be required.

CHAPTER XX.

INSANITY ASSOCIATED WITH VISCERAL DISEASE AND DISORDERS OF METABOLISM.

Phthisis and insanity--Asylum phthisis associated with melancholy, and generally with suspicion and obstinacy — Lung degeneration and melancholia — Spasmodic asthma with insanity—Heart disease and insanity—Kidney disease and insanity—Diabetes and insanity—Gout and insanity—Exophthalmic goitre and insanity—Myxœdema and insanity.

Phthisis and insanity.—I feel sure that there will be proved to be a very distinct connection between some low forms of lung inflammation with destruction of tissue and disorder of the nervous system. It has been sufficiently long recognised that the ordinary termination of progressive paralysis is by some inflammation of the lungs, and, in my opinion, this is not altogether due to mechanical congestion. Later, I shall point out various relationships which I have found to exist between phthisis and insanity; and I repeat here my belief that phthisis occurring in one parent, and neurosis in the other, will make the tendency to nervous disorders much greater than without phthisical parentage. There is a special set of symptoms associated with phthisis occurring in insane patients.

One of the peculiarities of phthisis in the sane has long been recognised to be a general hopefulness, so that patients who are rapidly emaciating, who are coughing and spitting, sweating and suffering with colliquative diarrhœa, will tell the

doctor that, if they could only get rid of their cough, they would be well again.

On the other hand, in an asylum phthisis is found associated with melancholic symptoms, with few or no physical symptoms, but, as a rule, with confirmed suspicion and obstinacy. The general course of the disease and the symptoms are as follows: A patient, with insane inheritance, becomes out of health, dyspeptic, and generally ailing. His friends suspect that the family complaint, phthisis, is developing; but the signs of the disease are so few that it is thought a change of scene will remove the trouble. He is sent on a voyage, and for a time his general health improves; but with this there has been noticed an irritability of temper and a suspiciousness which were quite unnatural to him. In some cases the symptoms require the patient to be placed in an asylum abroad; and it is not till he has been under observation for some time that the true state of matters is discovered. A fresh attack of irritability, and a further development of emaciation, lead to careful exploration of the chest, when it is discovered there is dulness at one or both apices. At the same time refusal to take food is marked—and I would say that in the main I agree with what Dr. Rayner has said, that refusal to take food is most marked with the earliest symptoms; that, in fact, with consolidation refusal to take food is pretty constant, and that breaking down of lung tissue is frequently associated with a return to eating. I am in the habit of saying that, in the cases of phthisis, the pneumogastric itself conveys wrong impressions, and that the irritation at the lung end is treated as if it were derived from the stomach. At any rate, with phthisis obstinate refusal of food is so common that when I am investigating a young case of insanity, and hear that there is obstinate refusal of food and progressive wasting,

I at once suspect phthisis, and seek for it. There may be, at this period, nothing in the way of cough or expectoration to excite attention; but there is occasionally early hæmoptysis; and in my experience this is common late in the disease, and then is one of the causes of death.

Besides refusal of food, which refusal is due, in most cases, to ideas that there is poison or filth of some description put into the food, there is often obstinacy of an extreme kind to any interference from without; so that patients will resist being dressed in the morning, and will equally object to being undressed at night. They will resist being moved, and they will be in direct opposition to all about them. Some of these cases have a considerable flow of saliva, and others are constantly ejecting saliva and mucus from their mouths, probably because they believe their secretions to be poisoned. Diarrhœa comes on, and the utter neglect of personal comfort necessarily causes great trouble to friends and attendants. Bed-sores rapidly form. Cases of this kind may last for many months without any apparent change in the mental state; but it is common to meet with phases of mental improvement associated with exacerbations of the lung trouble. I have seen one case always better after a severe hæmorrhage, and in another, when the patient went abroad for phthisis, he became sane; but by the time his bodily symptoms were better, it was necessary to bring him back to England, in consequence of the return of his suspicions. A second advance of the lung disease was associated with mental improvement, only to be followed by mental relapse, with arrest of the pulmonary disease. In the end phthisis and insanity became fully established, and the patient remained till death obstinate and deluded. It is not uncommon to be able to discharge such cases from

asylums in the last few weeks of their existence; and every year I am in the habit of recommending friends to take such patients home to die.

To sum up. This class consists generally of young patients, in whom phthisis develops slowly but steadily; on the physical side emaciation, hæmoptysis, and diarrhœa are the chief symptoms, whereas, mentally, there is obstinate or stolid melancholia, with refusal to take food, depending upon hallucinations of taste and smell, or delusions about poison. Other hallucinations may be present, more especially those of hearing; the end of such cases is almost certainly death. *Post-mortem:* no special tubercular conditions have been found by me in the brain; lung changes as well as fatty changes in the liver have been met with.

Case of phthisis and insanity.—William C., single, 25; mother insane; first attack of insanity coming on without any known cause. The symptoms were first noticed ten weeks before admission, and were described as mental and physical collapse. He wished he was dead, and thought his whole body was polluted, so that he must destroy it to get a new one; he wanted his head blown open. He believed his friends were against him. On admission he was extremely thin, and very obstinate; he would take no food, and was wet and dirty. He had no cough or expectoration, slight sweating, temperature higher at night. Much rachitic deformity of chest. No dulness, or other signs of phthisis. Later, dulness was noticed at right apex, and some large râles. These symptoms slowly increased, but for a time he took his food voluntarily. He sank and died.

Lung degeneration and melancholia.—A second group indicates cases which, perhaps scarcely deserve the term phthisis. I can only say

that several which have been under my care have not provided me with bacilli, therefore that they were phthisical at all remains doubtful. Cases of melancholia, occurring later in life, say from forty to sixty, are often found after death to have large cavities in the lung, and I am sure that there is a very distinct connection between the lung degeneration and the weak physical health connected with the melancholia. I have seen one or two cases in which cataleptic symptoms have been present in patients who have died with lung disease; and I would insist upon the fact that it is of the utmost importance to examine every case of melancholia, whether young or old, whether with or without general symptoms, for lung disease. It may be well here to allude to the fact that gangrene of the lungs was supposed to be especially common among the insane. In my experience it is rare, and I am still doubtful how much is due to mechanical causes, such as the introduction of foreign bodies into the lungs themselves.

To conclude, phthisis kills a large number of insane patients.

Phthisis, especially if associated with neurotic taint, produces highly unstable nervous systems.

Phthisis in the insane is associated with certain groups of symptoms characterised by suspicion and refusal of food on the one hand, and with masking of the physical symptoms on the other.

Degenerative lung disease is common in melancholia and in general paralysis.

Sanity not uncommonly returns before death in phthisical lunatics, and some recover sanity to die in a year or two of phthisis.

Spasmodic asthma with insanity.—Spasmodic asthma must be looked upon as a nervous disorder, and it is of great interest and importance

to be able to trace distinct relationship between it and other nervous disturbances. I have met with several cases in which insanity has alternated with spasmodic asthma in patients who have for years been subject to recurrent attacks of asthma, and who have become almost suddenly well, as far as the asthma was concerned, but who at the same time developed insanity, and as long as the insanity was present the asthma was absent. This alternation of symptoms in many respects resembles what I have already referred to as occurring with some cases of hysteria. Cases which I shall refer to more particularly are subjoined, two having been discharged.

Elizabeth G., single, æt. 34, with no insane inheritance. This is the second attack of insanity, the first having occurred five years before. There was a history of phthisis in the family. This patient had been admitted to the Incurable Hospital at Putney in consequence of the chronic asthma. When admitted into Bethlem she was as melancholic and suicidal a case as one could well see. She refused her food; she thought people were making remarks, and that there were voices and accusations of every description to annoy and distress her. She attempted suicide, and while in the hospital she drank off all her medicine, hoping thus to effect her object. This condition of active suicidal melancholia continued till she developed an attack of asthma, after which she was perfectly sane, and for a time had few recurrences of asthma. This, however, returned with obstinate violence, and she remained subject to recurrent attacks of spasmodic asthma, but retained her sanity.

Kate M., single, æt. 28, insanity on mother's side and phthisis on the father's side. Patient has been subject to neuralgia. She has had three previous attacks of insanity. Soon after she men-

struated she developed symptoms of spasmodic asthma, which continued till 1874, when she had her first attack of insanity; during this attack she was free from asthma; with mental health asthma returned. With each fresh attack of insanity there was a repetition of the bodily and mental symptoms met with in the first attack. The present attack began six weeks before admission (October, 1883). She was maniacal; she pricked her skin to allow the sand to escape from under it, as she said. She saw black things above her and in her food. She was very destructive and abusive.

She was obstinate and refused her food, having to be forcibly fed. She was extremely thin and weak. By January, 1884, she was well enough to go to the Convalescent Home, and for a short time had peace of mind and body; as she got stronger the asthma returned, and she was discharged well mentally, but suffering from spasmodic asthma, and she continued to break down every few years.

Matilda K., single, æt. 32, admitted Feb., 1884; no insanity in the family, sister died of tubercle; first attack of insanity, which had lasted three months. She had been subject to spasmodic asthma ever since puberty, but for some months there had been a change, so that she had been free from asthma, and also free from her "delicacy of chest." The immediate cause of the mental disorder was said to have been the breaking off an engagement. Amenorrhœa had lasted since August. She first became sleepless, then moody and taciturn; she was emotional, and threatened suicide; she thought she was going to hell, and saw the tortures which were being prepared for her; she saw the spirits of her dead friends; she said the asthma had gone to her head, and had destroyed her brain; that her skull was empty; she

refused food, was obstinate and silent; she was a good example of melancholia, with ideas of unworthiness; she had hallucinations, and was bothered by hearing voices shouting obscenities at her. Very slowly this patient gained strength, and in the end recovered.

In the next case chronic bronchitis was replaced by insanity.

Ann W., widow, æt. 64; no insane relations; had suffered from asthma and chronic bronchitis for twenty years; about Christmas, 1883, she became free from bronchitis, but excited mentally. She fancied people were talking about her; she believed people were going to injure her and her son; she was emotional and obstinate; she said her food did not pass through her, and that she was lost; she was suicidal, threatening to injure herself with knives, or to set herself on fire; she refused food, and had to be artificially fed.

In this case the age was against the recovery of the patient.

Obstinacy, refusal of food, and suicidal tendencies, with hallucinations of the senses, and delusions as to being eternally lost, are the chief symptoms of these cases.

Dr. Clifford Allbutt has pointed out the relationship between spasmodic asthma and some abdominal neuroses, and I expect we shall find similar relationships between some of the abdominal neuroses and insanity, so that a hypochondriac will be found to be free from his hypochondriasis when acutely insane.

I have also met with cases in which nerve-storm headaches have been entirely absent during attacks of insanity, and in one case no recurrence of these nerve-storm headaches took place after the patient had recovered from a severe attack of melancholia.

Insanity with heart disease.—It is fully recognised that there is a great want of careful statistics as to the exact proportion in which heart disease is found to exist in cases of insanity, though it is well known as a common cause of nervous diseases; and without such statistics all that I can do is to record my experience of cases in which melancholia or mania has been, at all events in some way, associated with heart disease. I have met with a large number of cases of insanity in which there has been some heart affection, most frequently following rheumatic fever; and I have already referred to my belief that there is occasionally associated with rheumatic fever a nervous disorder which may develop into insanity; this being quite independent either of the hyperpyrexia which may occur with, or of the heart disease which may follow, the rheumatism. Many cases suffering from mitral disease are also subject to melancholy. In fact, melancholia is always looked for by me in patients who, having had several attacks of rheumatism, with heart affection, become insane. With aortic, or with both aortic and mitral disease, the symptoms may be either melancholic or maniacal; but I am inclined to think that with simple aortic disease and with hypertrophy of the left ventricle, it is at least not uncommon to meet with acute mania and exaltation of ideas. This is interesting to me in connection with other observations which I have made upon the same subject. In patients who have suffered with mental disorder resembling in many particulars general paralysis of the insane I have found very marked atheroma of the aorta. So that in doubtful cases of men with exaltation of ideas I expect to find *post mortem* hypertrophy of the left ventricle and atheroma of the aorta, with more or less brain change.

In the following case there was *acute mania with repeated attacks of rheumatism:* Sidney C., single, æt. 22, medical student; had had four attacks of rheumatic fever already, and his heart was most seriously damaged. This was the first attack of insanity; it had lasted three weeks, and followed directly his last attack of rheumatic fever. It began with incoherence, excitement, and sleeplessness. He stated he was going to Lord Hartington; that he was to have a peerage and £150,000 a year; that he was going to found a university of his own; and, in fact, he was as full of grand ideas and benevolence as any general paralytic I have ever met with. He was constantly writing letters, and restlessly moving about. The pulse was of the water-hammer type, and a double murmur was heard at the base of the heart. With iron and general tonic treatment he became better, sleeping and eating well; he was finally discharged recovered.

In the next case, *symptoms resembling general paralysis were associated with advanced aortic disease.* Osborne O., single, fifty-nine years old; no insane inheritance, although some of his relatives were said to have suffered from spinal disease. The first symptom arose, without any special exciting cause, six months before his admission. He wrote insulting letters to his relations, became excited, constantly talking about himself, the many speculations he was going into, and the fortune he intended to make; he said he was governor of the Australian colonies. He also became dirty in some of his habits, and had an entirely false appreciation of the value of things. While in Bethlem he was constantly excited, talking vehemently, with all the inconstancy and benevolence of the general paralytic. It was discovered that his heart was much hypertrophied,

that there was a double murmur at the base; and there was a question as to the existence of a mitral systolic murmur as well. He became weaker in mind, and more emotional. One day after breakfast, a year from his admission, while sleeping he suddenly died; and *post mortem* we found a firm, somewhat wasted brain, with excess of fluid, but without any marked adhesions between pia and cortex, but with very marked atheroma of the arteries. There was degeneration of the kidneys; heart weighed eighteen ounces, with strong adhesions between the left ventricle and the pericardium; the left ventricle much enlarged and thickened, with the aortic valves involved. The pulse-tracing in this case was most characteristic of forcible action of the left ventricle, the upstroke of the tracing being one and a half inches long. The pathology of the condition was somewhat involved, and I was unable distinctly to say that his physical condition depended entirely or chiefly on valvular conditions; for it seemed to me that the adherent pericardium, interfering with the action of the left ventricle, had been the chief factor in the production of the hypertrophy of the left side of the heart.

It is interesting to notice that, in this case again, there were symptoms of exaltation, with suspicion of general paralysis of the insane, although no adhesions were found on the surface of the brain *post mortem*.

To conclude. The brain must be very seriously affected in the performance of its functions by the character of the supply of nourishment which is provided for it by the heart. One knows that the general aspect of anxiety which is depicted on the faces of many patients suffering from heart disease is recognisable enough; and that this anxiety should be further developed into melancholia is

easily to be believed. For the healthy performance of function there must be not only a sufficient, but a regular supply; anything interfering with the quantity, quality, or regularity of supply may upset the nervous balance, and cause, on the one hand, anxiety, with sleeplessness and vague dread; on the other, exaltation of ideas, with emotional instability.

It is not to be forgotten that cases of heart disease, with hypertrophy of the left ventricle, may be difficult to diagnose from ordinary cases of general paralysis of the insane.

Kidney disease and insanity.—The occurrence of albumin in the urine is uncommon in acute cases of mental disorder, and I may say this after examining several hundred specimens of urine of the insane. Albumin is sometimes found in cases due to alcohol, also in states of exhaustion and excitement, and in general paralysis, as already stated. At one time I was induced to examine the kidneys of very many general paralytics who had died in Bethlem, but with only negative results; for after comparing the structure of forty kidneys from such cases, I was unable to find any really characteristic change of the fibroid nature in them. I should, however, state that recent observers describe chronic renal changes in a considerable proportion of cases of this disease. Although I have not been able to establish any definite connection between fibroid degeneration in the kidneys and any group of cases of general paralysis, yet I have found a number of cases of insanity in which there has been marked degeneration of the kidneys. And although I cannot pretend to have discovered a renal insanity, I think it is worth while to record cases in which kidney disease has been at least associated with insanity, guarding myself by saying that I fully recog-

nise the fact that insane persons must die of some disease sooner or later, and that, therefore, it is only natural to expect we should meet with kidney disease in the insane as well as in the sane.

In the following cases, which I shall give in brief, the patients were suffering from melancholia; they had "mania of suspicion"; they all died, one of them by his own hand while on leave of absence.

Kidney disease, melancholia, uræmic convulsions, death.—Clara L., single, æt. 35, governess; anxiety was the supposed cause of this her first attack. It had lasted six months. She had no insane relations. She became depressed, declining to answer questions; she thought her friends were unkind to her; she wandered about the house without an object; at times she was violent, attempting to bite her relations; she was dirty and untidy. She had hallucinations of sight and hearing; she thought she was very wicked, and that God was angry with her. She was also suffering from amenorrhœa of some months' duration. On admission, what struck one most was the prominence of her eyeballs, the right being extremely protruded. On examination with the ophthalmoscope, neuritis in both eyes was detected, both optic nerves being swollen, veins dilated and tortuous, with numerous small hæmorrhages and white patches, the right eye having these most marked. Albumin was found to be present in the urine in large quantities. Her general health improved during the next few months, when she was found one morning unconscious, having lost a considerable amount of power on the left side. Her speech was thick and indistinct, and she was unable to swallow solids. Two months later she had another series of convulsions, in which her head was turned to the

right side; breathing became stertorous, and nine hours after the convulsions she died.

Post-mortem: besides wasting of the cortex of both kidneys, with adherence of the capsules, the condition of the brain was noteworthy. The lateral ventricles were enormously dilated; in fact, the large amount of fluid in these ventricles had pressed the convulsions to such a degree that they were almost smoothed out, and the ventricular walls had the appearance of those of a case of hydrocephalus. I have no doubt that this case would have been looked upon in former days as one of serous apoplexy; and it is interesting to note that there was so much fluid effusion into the ventricles, and no dropsy elsewhere.

The second case was that of Robert S. T., surgeon, married, æt. 60, with no insane relations. He had suffered from albuminuria for eight years; but mental symptoms had only lasted four months, and they began with religious despair. He refused to eat, asserting that his relations were placing drugs and deleterious substances in his food. He was excitable, and aimlessly wandered from room to room. He thought he was lost, and that he was a hypocrite. He had ceased to take any interest in his profession. On admission he had hallucinations of taste; he believed he had some infectious disease, and that his soul was everlastingly lost; refused food, and slept badly. During the time he was in the hospital he remained in much the same state, so that he declined to enter into any friendly communications with any one. He became more feeble, and died. In his case there was nothing found *post mortem* beyond the ordinary contracted kidneys; and the question is if old-standing Bright's disease alone led to dread, anxiety, and refusal to take food, and thus developed the melancholia.

The last case is that of John V., draper, married, æt. 46, who had one sister suffering from an attack of mania. This was his first attack of insanity, and the symptoms followed anxiety and worry during the previous year, the worry being due to money difficulties. His first complaints were of pains in the head. He was sleepless; complained of voices and loss of memory, and wandered about the house at night; at times he was violent, suspicious, and fancied people had taken property belonging to him. On admission he was melancholic, taking little notice of his surroundings, and unable to give a connected account of himself. Within a few months of admission it was noticed that he was suffering from albuminuria; his feet became swollen, and his face puffy; with the swelling of his legs and the physical distress he improved, and was so much better that he was sent to our convalescent home, and later was allowed to go on leave. One day, without any special alteration in his symptoms, he avoided his friends, and managed to commit suicide by hanging. In his case the complaints he made of extreme sleeplessness before he was admitted into Bethlem inclined me to think that while on leave the sleeplessness recurring caused him to lose power of self-control; and hence his suicide.

That the first and the last cases were due to anxiety I have little or no doubt. The evidence given by the patients and their friends was sufficiently clear, and it is becoming more plainly demonstrated that anxiety, or, if I may use the term, perpetual strain and high tension, may give rise to kidney disease, so that the causation of the mental symptoms was probably of a two-fold nature, strain, anxiety, and sleeplessness producing arterial change, and this tending to unstable

nervous conditions ending in insanity. Others have observed cases with symptoms of acute delirium or acute confusional insanity, due, in their opinion, to the presence of acute nephritis, which was demonstrated *post mortem*.

On pp. 29, 76-77, 78-79 reference was made to the association of *Uterine* and *Ovarian Disorders* with insanity.

Insanity with diabetes.—The question as to the causation of diabetes remains as far from solution as ever. In my opinion there are several strong reasons against considering diabetes to be merely a nervous disease. In the first place there are certainly no common changes found in the brain and higher centres in diabetes; and next, it is uncommon to find this disease well marked among insane patients. Notwithstanding the observations made by Dr. Dickinson at Bethlem Hospital some years ago, in which he discovered traces of sugar in a considerable number of cases, I am convinced that some error crept into those experiments; and I am inclined to think that the reduction of the copper which took place was due to the presence rather of uric acid than of sugar. At all events, on careful repetition of the investigation in the spring of 1883 with Dr. Hale White, I was confirmed in my belief by finding sugar in only three cases in the hospital. There is, however, according to Dr. Maudsley and others, a relationship of another kind between neuroses and diabetes: diabetes, according to these observers, occurs in the same families in which insanity is also present. I have not as yet made sufficiently numerous or careful inquiries as to the truth of this observation, but I must admit I have already met with several cases confirming it.

In the three following cases sugar was found in considerable amount in the urine. One patient

(J.) with brain hypochondriasis believed that he had lost his "back brain" and with it the power of thought. The second case (H.) was peculiar from many points of view. This man was of advanced years, and his insanity depended upon post-apoplectic conditions. After the attack of apoplexy it was discovered that he was passing a moderate amount (thirty to forty ounces) of urine daily, of specific gravity under 1·020, with a considerable amount of sugar. The sugar may have been altogether independent of the apoplexy and the insanity; for the patient sufficiently recovered to be discharged, but sugar was still present in the urine. In the third case, the sugar occurred after an attack of puerperal insanity, and I believe that it will be found not to be uncommon for sugar to appear in cases of puerperal insanity in which the milk secretion has been arrested.

To sum up, I know of no direct relationship between diabetes and insanity. The diabetic may, however, experience considerable mental depression.

Gout with insanity.—Recently books and papers without number have been written on this strange disease, and I feel that fashion in medicine and the evidence of waves of thought are nowhere better seen than in relationship to this subject of gout. Many years ago one heard of gout as a disease acquired by our forefathers and transmitted by them, in a more or less degenerate form, to us; but nowadays one hears everywhere of gout and gouty troubles. I have no doubt that civilised people, especially those belonging to the educated classes living in cities, eat too much stimulating food; that, in fact, they do not keep their sewers well flushed, the consequence being that there are obstructions and overflows connected with unpleasant results. Whether there be a special blood poisoning by uric acid or not, or whether gouty

conditions are dependent on defective blood purification generally, is not for me to consider. Some would look on gout as a nervous disease primarily, but I do not agree with these. I have no doubt that there are cases of insanity connected directly with gout, and I subjoin a case which is as nearly typical as could be desired, the disorder being co-existent and also co-extensive with gout.

John E., naval officer, married, æt. 53, had no insane blood relations, had been distressed by the insanity of his wife. The symptoms had begun eight or nine months before admission, and were thought at first to have been the result of his domestic worry and pecuniary difficulties; but it was shown that before the onset of his symptoms he had not had his usual attack of gout. He was a man who lived well, but was not intemperate. He became depressed and sleepless; he refused food; and was constantly endeavouring to escape because he believed he was to be vivisected. He thought detectives watched him, and that he was a centre of conspiracy. He made five or six determined attempts at suicide, and I remember few patients who caused more anxiety than did this one. Nothing seemed to influence him for good, and his whole thoughts were concentrated on escaping from the world and his persecutions. This state continued till three months after his admission, it being now a year since the appearance of the first symptoms of his insanity. One morning, going round the wards, I was surprised to be greeted by him in a cheerful way, he pointing to his foot, and with a smile saying, "Doctor, I have got the gout again, and I am all right." This was true; he had a sharp attack, after which he was as cheerful and happy as a man could be, and with the relief of gout there was no return of insanity. Year after year he continued periodic-

ally to visit the hospital, and would always say, "Well, doctor, I have got the gout, and hope to keep it as long as I live, because my mind is perfectly well and clear as long as I have it." The prognosis in a case of this kind must certainly be doubtful, for we cannot tell how soon he may again suffer from the so-called suppressed gout.

Other writers have recognised the feeling of terrible depression which is often connected with undeveloped gout; and the experience of most men has enabled them to witness the immense increase of irritability which may occur with an acute attack of gout.

Attacks of acute mania have been described as depending on undeveloped gout, and as passing off with the development of acute gout. I have not seen such a case myself, though I have met one or two gouty persons who have told me that they were most buoyant just before an attack of the gout. Gouty degenerations of various kinds may tend to ideas of dread, persecution, and to senile weak-mindedness, or end in apoplexy.

The treatment of insanity depending on gout must be in all respects similar to the treatment of gout; and I am afraid that when asked how to prevent a patient getting suppression of gout I am unable to give explicit advice, for the drinking of stimulating full-bodied wines is not always sufficient to produce it, even in predisposed cases. As a rule, I think exercise, so far as you can consistently recommend it, Turkish baths, saline purgatives, and change of surroundings, will be found the most likely means to prevent the insanity, or to assist in the removal of depression, connected with gout.

Exophthalmic goitre with insanity.—In referring to myxœdema I point out the interesting connection existing between degeneration and

alteration in the peripheral and central nervous systems, and the relationship of these changes to the development of symptoms of insanity; here too a similar interest exists, for with exophthalmic goitre we have a strange perversion which must be considered as more or less intimately connected with the sympathetic system, or at all events I may safely say the vaso-motor system. It is unnecessary to describe in full the symptoms of this disease: suffice it to say that, as with myxœdema, the disorder is most common in women. Its chief symptoms are palpitation of the heart, a rapid pulse, prominent eyeballs, and enlargement of the thyroid gland. In the *Guy's Hospital Reports*, vol. xxvi., I have described the relationship between exophthalmic goître and insanity, and I will here briefly recall the chief facts observed.

It is not necessary for all the symptoms to be present in each individual case; the palpitation, the prominent eyes, or the enlarged thyroid, may be the first or only symptom for a considerable period, but as a rule all the symptoms are present sooner or later. In Bethlem I have seen three fully developed cases of this disease connected with insanity. The following is a good example:

C. S., single, æt. 28, an artist, having two insane relations. This was reported to be the first attack of unsoundness of mind, the cause being unknown. Two months before admission into Bethlem she became incoherent, was noisy and excitable, had delusions, thought that she was an actress, and had false ideas of her powers and influence. The chief characteristics of her insanity were excitement, incoherent talking, violence, destructiveness, and sleeplessness. She had suffered a good deal from palpitation of the heart; according to her friends, exophthalmic goitre had been developing for about a year, and

she had worried herself considerably about the change in her personal appearance. On admission she was found to be a pale, anæmic girl, with marked and pretty uniform protrusion of both eyeballs, and slight enlargement of the thyroid gland. The number of the pulse was not then recorded, but later it was 140 to the minute. She continued to be acutely maniacal during the next month, became filthily dirty in her habits, constantly filling her mouth with dirt, stones, and sticks. She was treated medically with liquor ergotæ and tinctura belladonnæ, but without any benefit. Within ten weeks of her admission she became much weaker, and was confined to her bed. She suffered much from vomiting and purging; the pulse was 135, respirations 40, temperature 98°. The eyes were more prominent than ever, especially the left; the pupils, which at first were large, became somewhat larger; she was still dirty in her habits, but less noisy; palpitation of the heart was marked, and a systolic bruit was heard at the base of the heart. This was very rough in character, but was not audible at the apex. A bruit also occurred at the base of the neck on both sides.

The patient now became dull and sleepy, skin hot and dry to the touch, although the temperature was really normal. She became more dull and sleepy, and could hardly be roused. Pulse 140, respirations 50, temperature 100°. No lung complications could be detected; heart palpitating; conjunctivæ suffused, optic discs pale, vessels appeared large and dilated; the vomiting became less, purging continued. On the next day she was reported to be gradually sinking.

Post-mortem: the brain was found to weigh 44½ oz., the dura mater was thick, but free, the arachnoid thin and quite normal. There was an

appearance of congestion about the finer vessels, giving a bright red dendroidal appearance to the surface of the brain. There were no local wastings of the convolutions; there was slight excess of subarachnoidal fluid; grey matter normal but thin; white matter soft; ventricles with excess of fluid, walls and floors of ventricles granular, vessels at base normal; cervical sympathetic ganglia normal in appearance; lungs congested at base, and having several patches on the surface like apoplexies. Heart 13½ oz., firmly contracted; early atheroma visible in the aorta; clot in the right auricle. Both kidneys congested, capsule thick and adherent; liver very fatty; suprarenal capsules small and breaking down. There was some fulness in Peyer's patches, and the spleen was normal. On careful microscopical investigation of the cervical ganglia of the sympathetic, perfectly healthy appearances were found. I have never examined a more typically-healthy sympathetic in my life.

The case, then, so far as the *post-mortem* is concerned, exhibits no evidence of special disease except in the suprarenal bodies. The congestion in Peyer's patches was remarked in connection with the fact that similar conditions have been described by Mr. Howse, in the *Pathological Transactions* for 1877, as having been found in another case of this disease.

In all the three cases recorded in the *Guy's Hospital Reports* there was present a restless condition of mental irritability and violence, with dirty habits, refusal of food, emaciation and diarrhœa, and in two of them death. I was unable to convince myself of any change in the cervical ganglia of the sympathetic. Other cases have been described more recently by Dr. Carlyle Johnstone, and I have no doubt that now the

relationship has been pointed out it will be seen to be more common than might have been imagined. Besides ordinary insanity associated with this condition, I have met with several cases of general paralysis of the insane, with one or all of the symptoms of this disease; and other writers have described proptosis as an accompaniment of general paralysis. I am persuaded that in cases where this proptosis was present other symptoms would have been found if sought for.

The third condition of interest is that in which there are recurrences of mental and bodily symptoms together. One patient, in Bethlem, subject to recurrences of mental excitement, always exhibited a prominence of eyes with a rapid pulse and a somewhat enlarged neck among the earliest symptoms of the recurrence; and that this is not a singular example I am convinced, not only from my own observations, but from the inspection of photographs of cases of recurrent mania during the periods of excitement and of rest, which I have met with from time to time.

To sum up. With insanity there may occur all of the symptoms of Graves's disease, and this condition may be a permanent progressive one; so that the patients die of Graves's disease with insanity, or they may die of general paralysis in which exophthalmos with rapidity of pulse has been present constantly, or recurrently, or periodically; symptoms of sympathetic disturbance may also be associated with recurrent mental disorder. The treatment of such cases must depend rather upon general than upon special symptoms, and I may say I have met with several cases of acute mental disorder with symptoms of exophthalmic goitre, which have completely recovered, and have lost both the symptoms of mental disorder and those of bodily disease.

Myxœdema and insanity.—I have special interest in considering this condition and its relationship to insanity, because I believe I was the first in England to describe this relationship, and since my description many other writers have

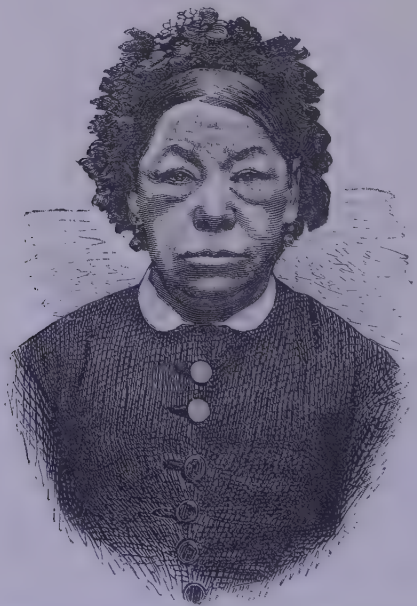

Fig. 29.—Case of myxœdema with weakness of mind.

recognised its force. I annex a likeness of a case in which myxœdema was well marked. I am convinced that there is some very special connection between the alteration in the type of face and the conditions allied to myxœdema. A certain number of weak-minded patients assume aspects strikingly similar, and one special group had long

been recognised by me before I knew anything of myxœdema. These are not fully developed cases of this disease, but I believe they will be found to have much in common with it. With myxœdema, as has been pointed out by Gull and Ord, a certain cretinoid appearance becomes developed in patients formerly healthy, and with this condition a slowness of nervous reaction is also present. Patients have, in fact, alteration not only in the peripheral nerve endings, but also in the higher centres, so that perception is dull and conduction slow, the reaction having been likewise impaired, and the memory is weak. Which of these plays the most important part in the production of the mental weakness I am not prepared to say; but I have sufficiently referred to the importance of normal sense perception in producing healthy nervous action, and need say no more on the subject.

Sarah B., widow, æt. 60; had had one previous attack of insanity, the supposed cause being the death of her husband. A maternal aunt had suffered from insanity also. The symptoms of this attack occurred three months after the death of her husband, and about three months before admission into Bethlem. The first symptoms were incoherent letter-writing and hallucinations of sight. She became threatening and violent; fancied people were insulting her. She was feeble in memory and complained of people watching her, speaking about her, and wishing to starve and annoy her. These symptoms exhibit nothing specially characteristic, being similar to those commonly met with in elderly widows of a nervous type; but on careful investigation it was found that her perception was very dull, temperature sub-normal, her aspect fully myxœdematous, her speech slow and muffled. She had a sense of

suspicion and of injury such as I have described as common in these cases. The prognosis in all such cases appears to me to be unfavourable. It depends rather upon the bodily condition and upon the secondary degenerations which may occur during the development of the disease. In the above case no albumin was present in the urine, therefore one might expect this patient to continue slowly to develop the symptoms already described for years to come, and then to die of some secondary disease at an advanced age.

The following is an example of myxœdema in an early stage in a man. George E., hairdresser, married, æt. 37; no insane relations. This, his first attack of insanity, had lasted three weeks before his admission. It began with suspicion that a young man was going to kill his wife; he thought his food was poisoned: he was restless, sleepless, and much depressed: had hallucinations of hearing: he could not control his thoughts; constantly "bad language appealed to him."

Slowly this patient gained confidence in himself up to a certain point, but there he again failed. He was tried at home but could not manage to stay there, voices and followers annoyed him. He occupied himself with photography, but preferred to remain in the hospital.

Physically this patient exhibited the symptoms of myxœdema only to a moderate degree, but they were all increasing. His face was becoming cretinoid; his temperature was sub-normal; his skin was dry and there was no sweating; his sight was impaired and his hearing was failing. Slowly but steadily he would pass into dementia.

Treatment is of course the same as for myxœdema pure and simple, with exercise of like precautions in administration of thyroid gland preparations.

In concluding this chapter it may be said that all chronic diseases which produce physical reduction and cachexia are liable to present symptoms of mental disturbance, such as impairment of memory, confusion, hallucinations and illusions, or even delusions, agitation, and possibly delirium.

CHAPTER XXI.

INSANITY DUE TO TOXIC INFLUENCES.

Post-febrile insanity—Acute delirious mania—Alcoholic insanity—Polyneuritis with mental disorder—Effects of abuse of chloral, opium, tobacco and cocain—Lead-poisoning—Pellagra and insanity.

Post-febrile insanity. — Symptoms of mental disorder sometimes arise in connection with febrile states.

Thus, the delirium may be replaced or immediately followed by mania; this may or may not be associated with extraordinarily high temperature.

I have seen mania succeed the delirium of drink, the delirium of belladonna, the delirium of pneumonia, and the delirium of specific fevers.

In these cases there is generally well-marked neurotic inheritance; the patient passes through the first few days of febrile disturbance naturally, then becomes sleepless, chattering, and often amorous; refusal of food is very common, and rapid exhaustion follows. The mania may have most of the characteristics of ordinary delirium, but may persist for days or weeks. If sufficient food be given, the patient generally recovers, but with refusal of food rapid exhaustion and death may follow. After the mania has lasted for a variable number of weeks, depression or partial dementia is well marked, there being some vague dread or other in the former case, and in the latter listlessness, with loss of memory, disregard of friends and relations, and neglect of the decencies of

life. As soon as possible such cases should be sent from asylums, and change in their surroundings tried in every way. Tonics, stimulants, and abundant fluid foods are necessary.

I do not think it matters whether the disturbance be due to local inflammatory disease, such as pneumonia or pleurisy, or to rheumatic, scarlet, or typhoid fever or influenza.

Besides the above forms of mental disorder, I have seen insanity associated with the outbreak or incubation of scarlet fever and small-pox, and in such cases the early onset of delirium of a marked kind has been followed by mania, which again has been followed by the specific rash. In several such cases the acute mania passed off with the development of the specific symptoms of the fever, but in others the two diseases were both present.

Fevers and feverish states may be followed by temporary or permanent weakness of mind. It is not unusual to meet with cases of loss of memory after typhoid fever, even when the febrile process has not been specially severe; after rheumatic fever there may be a similar loss of mental power.

Besides loss of memory, I have met with cases of moral and intellectual perversion which followed feverish diseases.

In my opinion there is no specific disease of the brain due to fevers, but I believe that either brain wasting may result from the rapid body wasting of fever, or, in nervous persons, the balance may be disturbed by the all-pervading febrile process.

Acute delirious mania.— This disorder has many distinct points of difference from acute mania; and from the extreme danger to life which arises from it, it requires a special and detailed study.

In acute delirious mania there is frequently

insane inheritance; the outbreak of insanity is often sudden, or the transition from indolence or melancholy to mania is sudden; the maniacal outbreak generally has some definite cause, and may suddenly follow on a shock, a grief, or on some physical disease, such as a pneumonia or a fever, or, in fact, on any condition resulting in great exhaustion. The patient is more restless than in ordinary mania, and the sleeplessness is more constant; the language is more incoherent, and resembles the talk of a patient in the height of a fever, for though attention may be recalled for a moment, no continuous trains of thought are started by sense impressions from without.

Early in the disease the temperature is raised, ranging from 100° in the morning to 102° at night. The face is often flushed, the pulse small and rapid, respiration may be rapid or sighing.

The patient, if extremely ill, will lie on his back muttering. The lips are covered with dry brown sordes, and the tongue is dry, cracked, and leathery: one is reminded of the typhoid state. All food is refused, there appearing to be great pain in swallowing; the bowels are obstinate and confined; there is insomnia. There is no rash and no sweating. Masturbation is common; urine and fæces are passed involuntarily. Bed-sores rapidly form. The patient quickly wastes, and may die in a few days (death occurring in some 50 per cent. of cases), or may pass into a condition of profound physical weakness associated with mental torpor; there may be some paraplegia or contraction of the lower extremities. The memory is either wanting, or greatly impaired. Recovery may take place, and in some cases years have passed without any recurrence. The rapid exhaustion, the increased temperature, the delirious chatter, and hallucinations of the senses (especially of sight), of a tran-

sient nature, and the frequently fatal issue, distinguish this disease.

Acute delirious mania.	Acute mania.
Cause often definite.	Cause doubtful.
Onset often sudden.	Onset gradual.
Temperature considerably increased.	Temperature nearly normal.
Refusal of food, greater restlessness, and insomnia.	Appetite capricious.
Rapid wasting with weakness.	Wasting much less, no weakness.
Flushed face.	Pale or sallow complexion.
Hallucinations variable and like those of fever.	Hallucinations more persistent if present.
Greater incoherence of speech and disturbance of consciousness.	Incoherence associated with sense impressions.
Memory often wanting.	Memory present, often influenced by the surroundings.
Result often fatal.	Results mostly favourable.

The following are good examples of *cases of acute delirious mania:* (1) A woman, thirty years of age, having no neurotic inheritance, but with a delicate mother, fell out of health and became sleepless and nervous; no history of love disappointment or injury could be obtained; there had been loss of flesh with irregularity in menstruation; her appetite was capricious, and she was considered by her friends to be giving way to whims and fancies; she was, in fact, becoming troublesome and hard to manage. Change of scene was tried, and was followed by temporary improvement; yet, on the whole, the patient was not herself. A fright, of no extreme severity, caused a sleepless and disturbed night, followed by further development of restlessness. She became loquacious and rather incoherent, or perhaps it would be better to say silly, in her way of talking. She then became less careful about her dress and appearance, got up at night and removed her night-dress, and would have

walked about nude. After this there was a development of sexual desire. She spoke of being married, and her habits became dirty and offensive. She refused food, and rapidly lost strength; all endeavours to support her general health failed; she was restless at night unless strong narcotics were given. Nutrient enemata and feeding by nose and by stomach-pump were tried, but with little good effect; and notwithstanding every endeavour she lost weight rapidly and sank, having become partly conscious before death. During the whole period the temperature had been high.

(2) In another case a very similar history was given, the chief point of interest being that this young woman had high temperature for some weeks before it was considered necessary to send her away from home. The reasons for having removed her were that she refused food, was wet and dirty, had also developed habits of self-abuse, which could not easily be controlled. She was sent to a general hospital, but here she was so violent in her language and in her opposition to certain of the nurses, that it was found impossible to keep her there. She was transferred to Bethlem in a very weak condition. Her lower limbs were mere skeletons, and there were bed-sores on both hips and over the sacrum; the legs were contracted, and any attempt made to move them was followed by a violent emotional outburst. There was great difficulty in getting her to take sufficient food. A steady perseverance in feeding, however, with addition of abundance of stimulants, was followed by good results, so that her legs became stronger, she was able to walk, power over bladder and rectum was restored, bed-sores healed, and the whole of the emotional disorder passed away, and in the end the patient was cured after eight months' treatment.

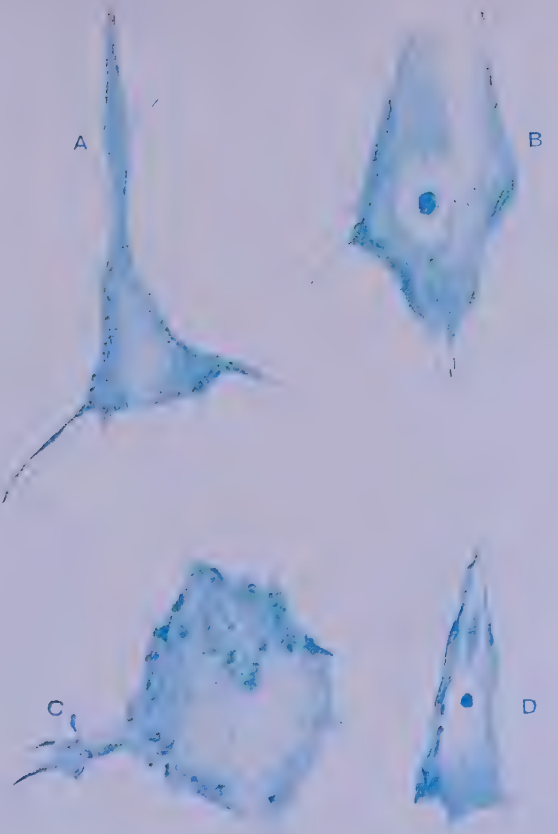

PLATE VI.—ADVANCED GRANULAR DEGENERATION OF CELLS OF THE CORTEX: DESTRUCTION OF CHROMOPHILE SUBSTANCE AND OF CELL PROCESSES.

A, Pyramidal cell, showing diffuse staining and disappearance of Nissl granules. Acute delirium of fever and anæmia (from black-water fever specimen). B, Betz cell, showing marked chromatolysis. Dementia præcox with catatonia. C, Betz cell, showing marked chromatolysis. The nucleus is not shown because, owing to its eccentric position, it has been cut off. Alcoholic. D, pyramidal cell, showing perinuclear chromatolysis. Alcoholic. Stained by the Nissl method. ×500.

(3) Edith S., single, 22, sister an idiot, maternal uncle insane, maternal aunt insane. She was a somnambulist as a child; had chorea when 11 years old; has been subject to neuralgic headaches; she was admitted into a general hospital, and upon examination was considered to be suffering from grave hysteria. The attack was the result of loss of relations by death, and change in her social position. She refused food, passed her urine and fæces in bed. Her temperature was raised, there was a dry brown tongue, foul breath and great and rapid emaciation. She was sleepless, at times excited, emotional, and incoherent; had hallucinations of sight; some loss of common sensibility of left arm, and tenderness over left ovary. There was later noticed to be some confusion about greens and pinks; her memory was found to be defective. The patient was removed to Bethlem; there she was constantly and persistently fed with nourishing and stimulating food. She resisted for a time. Within a month of her admission she was mentally well, though very weak. The probability was that she would keep well for a time, at all events, but with such a history of nervous disease in the family relapses were to be expected.

I have seen other cases recover, in which the chief symptoms were the delirious excitement and persistent high temperature, the refusal to take food, dry brown tongue, constipation, fulness or tenderness of the abdomen, rapidly succeeded by emaciation, contraction of the lower limbs, and development of huge bed-sores. These cases have generally occurred in women, and have almost always been associated with some ovarian excitement. They fall under the head of what has been called typhomania, and are of extreme interest to the general pathologist; for though these patients seem to have a disease of an inflammatory nature,

yet we have hitherto failed to find the sources of the disorder. I have made *post-mortems* on such cases, in which it was impossible to detect coarse disease of any kind whatever; and on examining the brain of one case, I have found the vessels congested, and in that of another I have found them empty.

In several cases there have been found changes or diseases in some distant organ. Thus, in the case of a patient who died in Bethlem, besides some fulness of the intracranial vessels, an ovarian cyst, in a condition of inflammation, was found; and in another case, that of an elderly woman, who died in a similar condition, there was found a series of abscesses about the uterus. The chief point of interest in these cases, from the clinical side, is the high temperature. There is no great variation in the range, but one usually finds the night temperature the higher, and this is from 100° to 102°. I have no explanation to give of this, for we are totally ignorant of any brain centre which has a special controlling influence over the heat-producing function. In these cases the heart and lungs appear to be healthy.

In the way of *treatment*, which in these cases, to my mind, is of infinite importance, I would recommend the early administration of abundance of easily assimilated food, and that no feeling of sentiment should withhold the physician from feeding artificially. I should feed such a patient every three hours, night and day, with half-a-pint of fluid food, letting her have milk with an egg, milk thickened with arrowroot, beef-tea, mutton-broth, with one or other of the meat extracts, and with each meal I would give some stimulant equal to about half an ounce of brandy. The idea that in such cases brandy or spirits of any kind will affect the brain injuriously is a mistake, and many

a sleepless patient would rest after a night-cap of port-wine negus or a bottle of porter. Food and stimulants, then, are the first consideration.

If a patient is to be treated at home, it will almost certainly be necessary that she should have some form of sedative. Bromide of potassium, in some cases, seems to be specially indicated, its supposed effect in suppressing sexual desire making it useful. I have sometimes given half-drachm doses of bromide of potassium as injections, by this means succeeding in calming the irritability of the mucous membrane of the vagina; and, if seen sufficiently early, before there is much weakness, these cases may be benefited by baths of from 98° to 120°; the higher the temperature the shorter the time the patient must be retained in the water. I frequently prescribe baths of 100° night and morning, each of one hour's duration. The prolonged warm bath is also useful, as are sub-cutaneous injections of physiological salt solution as described under Melancholia (p. 207). Chloral may be given with the bromide of potassium, or alone, in doses not exceeding thirty grains to begin with. I, personally, do not like chloral in these cases, for many reasons, one being that it has a tendency to make patients who are still taking their food suspicious and inclined to refuse it. Occasionally, in cases of extreme weakness, I have given chloral and brandy combined, with considerable benefit. The other sedatives, such as paraldehyde, amylene hydrate, will in some cases be of service. I have failed to see good results from local or general counter-irritation, or from the application of ice to the head. I should, however, add that some physicians of large experience believe that in chloral they have a means of combating this disease.

The importance of good nursing and individual attention is especially great.

From what we have seen it will be clear that the *diagnosis* of acute delirious mania may be difficult. The chief diseases for which it may be mistaken are typhoid fever, meningitis, the later stages of some febrile disease, such as rheumatism with hyperpyrexia, and alcoholic delirium. In this disease there is rarely, if ever, intolerance of light, complaints of pains in the head, or vomiting, thus separating it from meningitis; and there is no tendency to diarrhœa, no enlargement or tenderness of the abdomen, as there would be in typhoid fever, and nowadays the agglutination blood-test would be employed in diagnosis. In alcoholic delirium there would be the history, the fears and suspicions exhibited, with less impairment of consciousness, and, physically, the tremors. The disease may kill, and, as I have said, it is a much more fatal malady than ordinary acute mania. Patients may get well, or they may pass into a condition of weak-mindedness after the acute attack. I have, however, never seen a case suffering twice from this condition; for though, as I have said, I have seen cases suffering from some form of insanity with a history of brain fever before, yet I have never come across a patient with a relapse of delirious mania. There is a great tendency in these patients, if they do not recover, to pass into a state of chronic weak-mindedness with excitement; they will suffer from general incoherence, and may live for years.

Alcoholism and insanity.—The *rôle* which alcohol plays in the causation of insanity has already been briefly referred to (pp. 60-63).

I have now to consider the forms of insanity which owe their origin specially to this agent.

To one great class of reformers alcohol is the general cause of insanity, and is directly to be blamed for the supposed increase of the disorder

among the people. I have no doubt but that among some classes it is quite true that drink is the chief cause of mental disorder, just as it undoubtedly is of social disturbance. It has been shown that insanity increases directly with the power of the working classes to get drink, and decreases in times of distress in which money can not be got to provide stimulants.

Drink may cause insanity, and it is chiefly harmful under certain conditions to which I shall refer.

Drink often gets blamed for producing insanity, whereas the intemperance was the first symptom of the disease.

Intemperance in the use of stimulants may act as a direct poison, at once affecting the whole nervous system, or it may affect the man by throwing him out of his social circle into a lower one, and thus, by producing poverty and loss of caste, act and react on the unstable mind. Alcoholic excess may act directly on the nervous tissues, or primarily on the general organs of secretion and excretion, interfering with the depuration of the blood, and thus act by preventing the brain from being properly nourished.

Alcoholic excess, then, may be the predisposing cause of insanity; may be the exciting cause; or may only be a symptom of the disorder.

There seems to be a great deal of misunderstanding about the legal relationship of insanity to drink, and I shall, when describing the legal relationship of insanity, have occasion to point out the various degrees of responsibility which exist with intemperance in drink.

Almost every variety of insanity may be started by drink; but there are also special symptoms connected with poisoning of the nervous tissues. I shall point out that poisoning by opium

or other drugs may give rise to symptoms similar to those of alcoholic poisoning.

The most practical question is whether persons suffering from alcoholic insanity should be sent to asylums. If suffering from simple acute alcoholism, or from delirium tremens, it is best not to send them to lunatic asylums; though a superintendent is justified in receiving a dangerous alcoholic case, and will be held free by the law if certificates have been duly filled, and the order and statement are in proper form. In some cases the sending such a patient to an asylum has a beneficial effect, at least for a time. I have known several hard drinkers become sober for considerable periods when they discovered their nearness to ordinary insanity.

The great danger of admitting such cases is that they rarely appreciate the intention of their friends, and are commonly vindictive. Such cases, too, are frequently morally perverse and sly; trumped-up accusations and vexatious law-suits are constant sources of worry as a result of their admission.

Drinking may be an early symptom of insanity. It may occur in cases where restlessness and sleeplessness are the early symptoms of disorder. It may occur in cases of hypochondriasis with anorexia. It may be part of the loss of control of the appetites seen in general paralysis of the insane. It may be the result of insane habit, which, from taking "nips," has developed into taking to excess. It may grow out of the craving of pregnancy, or it may be a symptom of climacteric uneasiness. It may be a direct inheritance, or it may be a result of neurotic inheritance.

I shall not describe delirium tremens in full. It is sufficiently recognised and described by the

general physician. It may be the result of one debauch; it may follow prolonged drinking; it may follow an injury, a bodily illness, or a mental shock, in persons who have been intemperate. I believe, in such cases, joyous news may also upset the balance. There may be one or many attacks of delirium tremens. If many attacks, there is almost certain to be some other sign of mental weakness.

A distinction exists between delirium tremens and acute alcoholic mania. I have seen several cases in which a single short bout of drinking has started acute mania in highly neurotic subjects. The causes of the attack and the general symptoms have resembled mania more than delirium tremens.

In the following cases *delirium tremens passed into an attack of mania*:—A young married man, whose father was distinctly neurotic, and whose sister had been seen by me suffering from mania and refusal of food, took steadily to drinking. He was a restless, active-minded man, who was trying to make a fortune rapidly by speculation. He felt his own danger, and the day before I saw him he consulted a physician, and got a neurotic draught. The same night he became wildly excited and violent, and had to be restrained. When I saw him early the next morning his face was flushed, his tongue furred and tremulous. He was at one moment shouting at the top of his voice, and the next he was quiet and fairly self-possessed. He had but few, if any, hallucinations of sight, and had no true horrors. He was erotic, and took food fairly. I told his friends that I believed it would turn out to be a case of insanity started by delirium tremens, and this proved to be the case. All the tremulousness passed off; his tongue became clean, and incoherence, sleeplessness, and

chattering were the symptoms of an attack of mania, from which he recovered.

In the next case more violent delirium tremens was followed by more prolonged mania.

Charles A., married, æt. 34, cousin insane. First attack of insanity, following at once on a very sharp attack of delirium tremens, produced by frequent bouts of spirit drinking. Besides drink, there had been failure in business, and nine months before an injury to the head. He first became suspicious, believing that the police were after him; he was sleepless and had bad dreams. He attempted to get out of the window; he threatened to kill himself. He had hallucinations of sight, hearing, and taste. He refused all food, and was violent in his attempts to get away from those who wished to injure him. He accused his wife of wishing to poison him, and he threatened to injure her. On admission, he was suffering from acute mania of a very delirious type. His face was flushed, his tongue and lips dry brown; there was yellowness about his conjunctiva; his bowels were constipated, and his urine had to be drawn off. He was incoherent, and violent in his resistance. He had to be fed with the stomach pump. His bowels were relieved by enemata, and he seemed for a day more quiet, but he again became violent and obstinate. For a month he remained in this condition, his state being one of extreme danger. Constant artificial feeding, however, gained the day, and his general health and strength improved. His tongue became clean, and his bowels more regular. He had hallucinations and delusions for some weeks longer, but in the end recovered.

In the next case an attack of mania following drink was followed by a period of six years' health, to be succeeded by a similar outbreak due to drink.

A. W., married, literary man, sister insane, father excitable. Had one short, sharp attack of mania, following intemperance, six years ago. He recovered, and for some years was teetotal. The attack followed a fortnight's heavy drinking and excitement due to successful speculation. He had the most extravagant ideas, and wrote and telegraphed to the social and legal heads of society; hired and bought whatever he fancied, and behaved in a very wild way. He became more violent and had to be sent to an asylum, where for a week he was restless, noisy, violent, and destructive. It is hardly possible to imagine any one more filthy than he was during this period. In the end he slowly passed through a time of depression to health.

In most similar cases discontent lasts for some weeks after the mental improvement has commenced.

Acute hallucinatory insanity with delusions of persecution (the mind being clear and orientation good) may be the result of alcoholism. Hallucinations of hearing, more especially, from ill-defined noises to definite sounds, such as ringing, knocking, and voices which threaten, jeer at the patient, or abuse. Upon these follow ideas of persecution. Recovery usually takes place in the course of a few weeks.

Just as drink often acts with special effect on persons with insane inheritance, so it acts specially on many who have received injuries to the head. I have met with patients in whom a very little stimulant would produce drunkenness, and in others I have seen acute mania started by stimulants under similar conditions. In a man who had served through the China war, and who had received a severe head injury from a bursting shell, very little drink, even beer, produced drunkenness,

and this was followed on two occasions by violent maniacal attacks which lasted a week or two.

Under certain other conditions of physical weakness, alcohol acts with increased power; and I believe that I have seen cases recovering from insanity who had less tolerance for stimulants than they had before their attack of nervous disorder.

Chronic alcoholism, like acute alcoholism, may produce insanity, or it may be a symptom of nervous disorder. In the former case we shall find some interesting perversions of the senses, and also tendencies to nervous degeneration of one kind and another. In the latter we have what has been called dipsomania.

With chronic alcoholism we may have simple dementia of any degree, ranging from loss of recent memory to the obliteration of all but the most automatic parts of mind.

Some forms of intoxication are supposed to act differently from others; the easy-going beer drinker differs from the sentimental champagne bibber, and these again from the desperate, often melancholic, spirit taker. Absinthe produces different effects to brandy, or else the individuals who seek the various stimulants differ greatly among themselves.

It is said that with absinthe there is a greater tendency to convulsive seizures.

Alcohol is a cause of general paralysis of the insane, and is operative alone or combined with other causes in some 20 per cent. of cases.

Patients who have long been in the habit of drinking to excess may become melancholic, may take the pledge, and may give rise to hopes that they are reformed. Chronic alcoholism may be replaced by chronic insanity of one kind or another.

Chronic alcoholism may be slowly replaced by some moral perversion, so that an apparently good

wife who has been a secret drinker may take to hating her children, and maltreating her husband and the servants. In such cases there may be relapses into drunkenness, and cure is very rare.

With all these alcoholic cases there may be power to transact business, and there is generally cunning, untruthfulness, and malice.

In persons of neurotic family, with comparatively little alcoholic excess, and in cases of chronic alcoholism, there are, as I have said, special symptoms often present. Suspicion is one of the most common forms of disorder. A man is physically and mentally tremulous from drink. He suspects persons, he is on the look-out for plots of all kinds. This insane suspicion grows, often slowly, to an extraordinary extent, so that at last it is hard to get out the evidence of insanity because the patient is so suspicious of everyone that he will deny his firmest belief to mislead those who are questioning him.

No men are more dangerous than those suffering from insanity with suspicion. They constantly carry weapons, and will not hesitate to use them.

Delusions as to plots, police, government, malice, revenge by noble or distinguished persons to screen themselves, are all common in this malady. As an extension of these we have delusions as to "following," persecution, watching, and the like.

Ideas of poisoning are very common, and may have a physical basis in chronic gastritis of the drinker. Voices are commonly heard accusing the patient or abusing and annoying him. If the voices direct and control the actions they render the patient highly dangerous. Visions may be present; but peculiar sensations in the skin are most noteworthy; they are described as being like

galvanism. One patient said he felt like one placed on an insulated stool having shocks taken from him. Sometimes the feelings resemble fine lines being applied to the skin, a "gossamer feeling," as one patient said to me. In some cases strange feelings affect the reproductive organs, and this may give rise to false accusations and to jealousy. Jealousy and violent accusations against husband or wife are common in chronic alcoholism, and may be dangerous to life or to reputation, the consistency of the tales very easily misleading those who cannot understand partial insanity. Erotic passion may show itself as a symptom of alcoholic insanity. Kleptomania may also be present.

The *prognosis* in delusional insanity due to chronic alcoholism is unfavourable, but very rarely improvement, or even recovery, may occur. The *diagnosis* from paranoia (systematised delusional insanity) must depend upon the history and upon the physical symptoms of chronic alcoholism.

Insanity with violent jealousy due to drink.—Thomas S., married, æt. 25, maternal uncle and aunt insane. The patient had rheumatic fever. He slowly developed habits of intemperance, and squandered a large fortune. He had two attacks of insanity of exactly similar character. He was suspicious; he heard voices directing him. He threw himself into the river. He thought his relatives were plotting against him. He refused food, and fancied things were dirty. He accused people of injuring him at night. He told the Commissioners that I had microphones applied to the brains of the patients, and so read their thoughts. He threatened to kill me. He accused his wife of misconduct, and said her last child was not his. He was removed to another asylum and for a time improved. In the end, with such habits,

a bad inheritance, and a damaged life, he will be sure to have recurrences, and die in a lunatic asylum, if he does not kill himself.

Dipsomania must be considered an irresistible desire for stimulants which expresses itself periodically, the individual in the interval showing no desire for alcohol. It may grow out of habit, it may be an inheritance, it may be an insane symp-

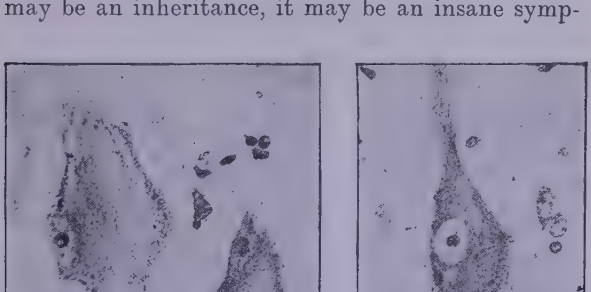

Fig. 30.—Nerve-cells showing acute chromatolytic changes (left-hand photo, alcoholism; right-hand photo, pyrexia). The Nissl-bodies have disappeared. In the two cells on the left there is yellow pigment, seen at the sides, and in each the nucleus is shrunken, increased in density, and excentric. In the cell on the right the nucleus is fairly normal, the nucleolus is vacuolated. × 600. (*Dr. John Turner's preparation.*)

tom, or it may be the vestige of an attack of insanity. It occurs in both men and women. It is more common after thirty than before; but in persons of insane inheritance it may be met with at a very early age. It may be a concealed vice, or it may be a raging passion. Its chief characteristic is the moral perversion which it causes. The patients, who may be everything that is good and refined when in health, become the most un-

Fig. 31.—Cortex from the top of the ascending frontal convolution in a case of alcoholic insanity. Stained by Nissl's method. × 45.

There is comparative paucity of the nerve-cells, with disfigurement of the cell-bodies and stunting of processes. (Compare with normal cortex, Fig. 23, p. 378.)

mitigated liars and the most contemptible cowards and sneaks. No meanness is too low for the dip-

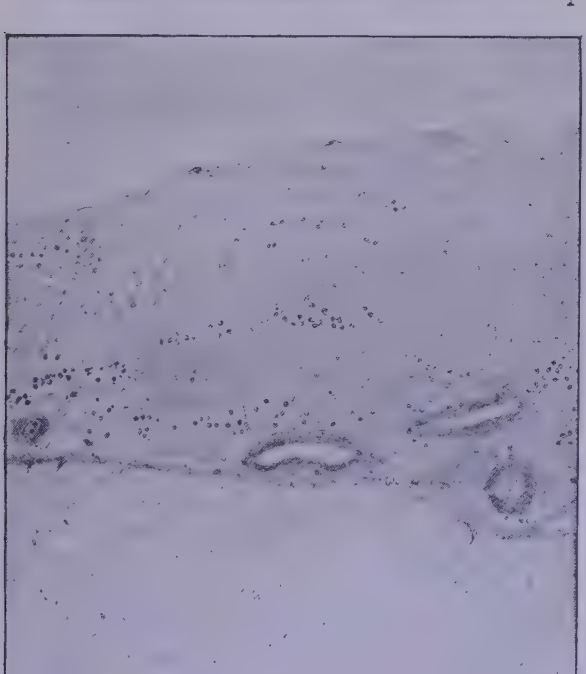

Fig. 32.—Showing the thickening of the membrane and matted proliferation of glia in a case of alcoholic dementia with neuritis. × 90.

somaniac, if it enable him to get his stimulant. Moral perversion, weakness of will, and emotional

instability mark the disease. The prognosis is looked upon as very unfavourable, but I believe the careful study of these cases shows that some are curable. If the disease be a symptom of some nervous or bodily disease it may be relieved; but if it have slowly grown to be a definite habit, nothing will cure it. If neurotic taint be strong its cure is not probable.

As regards *pathological anatomy*, we find nothing specific in alcoholic insanity. In acute alcoholic conditions the appearances are the same as in other acute states, such as mania. There is vascularity, and minute hæmorrhages are seen; there is destruction of the chromatin of the nerve-cells, with granular degeneration, or cloudy, diffuse staining of the cell, and peripheral displacement of the cell-nucleus, which is also stained; glia-cells collect about the cell-body or penetrate it. There is destruction of the medullated fibres. Similarly, in chronic alcoholism there are the usual pathological indications of chronic disease of the brain; thickening of the dura mater, with adhesions to the skull and pachymeningitis; thickening of the pia, especially along the vessels; chronic changes in the nerve-cells (alterations in shape, destruction of cell-processes, alterations of staining-reactions of cell-body and of nucleus, atrophy of the cell, etc.); destruction of medullated fibres; increase of neuroglia, especially in the outermost layer of the cortex; arterio-sclerosis.

The *treatment* of insanity due to drink requires no special mention; dipsomania and chronic alcoholism are best treated in retreats and inebriate homes.

Polyneuritis with mental disorder.—This condition, sometimes known as Korsákow's disease, from its having been described by that observer in 1890, may be mentioned here, as it is usually due

to abuse of alcohol; but polyneuritis after typhoid and other illnesses may be accompanied by like mental symptoms. The disease occasionally follows influenza. It is sometimes ushered in by delirium, but whether this be so or not, the characteristic mental state shows itself in association with symptoms of neuritis. Mentally, there is disorder of perception and of memory; the ability to appreciate external impressions is greatly impaired, and the memory for recent events is most deficient. Mistakes in identity are common. Paramnesia is frequent. There is a tendency to romance. The patient's remarks are absurd and contradictory. He is placid, and continues to make statements though frequently corrected. The mood is not characteristic; there may be well-being, apathy, apprehension. Pressure over the peripheral nerves excites pain; hyperæsthesia, paræsthesia, alterations of tendon-reflexes may be found, and impairment of muscular power, even dyspnœa and tachycardia. Anatomically, degeneration of the peripheral nerves and atrophy of the tangential fibres of the cortex cerebri have been described. Recovery after many months often occurs, and is more likely in those cases in which the liver and kidneys are in fair order, but weakness of mind is left in many other cases. The state requires to be diagnosed from senile mental disease and from general paralysis.

Generous diet, change of scene, and complete rest from business responsibility, constitute the best treatment.

Chloral habit.—With every addition to the Pharmacopœia some good may be gained, but my experience leads me to fear that every new hypnotic does at least as much harm as good. In chloral at first we were led to believe that we had a drug which neither upset the digestion nor in

any way acted injuriously, giving a peaceful sleep to the weary, and leaving a brighter and a better man. Chloral has its uses, to which I shall refer later; but now I have to consider certain mental affections produced by its abuse. It may set up a craving for its use, much like that for drink or for opium, and may give rise to similar moral perversions. The diseased state is the craving, and this varies in degree, being greatest with the most potent drugs or stimuli. I believe opium-craving is the greatest, and that for chloral among the least, and as a result the moral perversion is not nearly so great in the latter as in the former.

Chloral will establish a sleepless habit, and it will cause a feeling of deep depression, associated with anxiety and a hypochondriacal feeling at the epigastrium. It may produce a very great emotional disturbance and irritability, passing into deep melancholia, with suicidal tendencies.

In my experience it produces loss of control and tendency to impulses, so that suicide or homicide may result in a moment of loss of control. The terrible feeling of depression described by several patients who have been regular chloral takers was most marked on awaking in the morning, when the person felt as if he must precipitate himself out of the window. The loss of self-control ends in death from over-doses in the following way: A patient who used to take a certain dose now takes it without relief; he gets up and takes a little more, still not losing consciousness, though in a state of partial insensibility; he then takes an excessive dose, and sleeps to death.

I have seen stupor produced in one case by a single very large dose of chloral, taken with suicidal intentions, in a woman who had been leading an irregular life. She in the end got well, after being insane for nearly three years.

Other conditions which have been noted from abuse of chloral are impairment of memory and hyperæsthesia. It may be here observed that with cardiac disorders and disease of the blood-vessels chloral must be given with great caution.

Opium has a most baneful effect on the minds of those who are in the habit of constantly taking it, and more recently the vice of morphia-taking, or rather of morphia-injection, has become so common that the Germans speak of "morphismus" as well as "alcoholismus." The chief effect of both the alcohol and the opium habit is to produce craving for the drug which upsets the whole moral character, the impulse being stronger with the opium habit than with any other, and the temporary exaltation the most marked. The final result is intellectual as well as moral degradation. The same set of symptoms, resembling delirium tremens, may arise from either, and it is said that if an injection of morphia be given it will quiet in morphinism, but that alcohol will cause excitement.

In this state there is the same tremor, the same want of appetite, the same refusal of food, the same ideas of poison, the same hallucinations, and I believe the same eroticism, as in alcoholism. Sleep is deficient, there is constipation, sensations and reflexes are disordered, the cardiac activity is diminished, and nutrition fails. The evidence of hypodermic injection about the body and limbs assists in diagnosis, which can be established by observing the effects of enforced abstinence from the drug. This state may be produced either by opium administered by the mouth, or by morphia injections.

The *prognosis* is unfavourable, but the state may be cured.

Chronic morphinism is met with, with hallucina-

tions of the same kind as those which are seen to occur with alcohol. I had in Bethlem two cases, due respectively to alcohol and morphia, with exactly the same ideas. Both were suspicious, both were pestered by voices of friends and of enemies, and were told to do all sorts of things; both were much distressed on account of the supposed ill-conduct of their friends; and both had feelings of shocks, being, as they said, galvanised. These two cases spent some time in comparing their various symptoms, and each told me they were in every respect similar. The patient with the morphia habit got quite well, but was subject to relapses, as such cases are.

The *treatment* of the morphia habit is best carried out in a suitable institution, for the strictest supervision and regulation of the patient's life are necessary. Withdrawal of morphia is immediate and complete, or more or less gradual, according to the physical state and to the dose taken. Various symptoms follow withdrawal, such as restlessness, excitement, agitation, pains, sickness, tremor, or collapse of an alarming kind, so that various stimulants may be required. Hydrotherapeutics and sedatives, other than opium, may be employed. Nourishment requires careful attention. Cure, when obtained, is a matter of a few weeks, but further supervision for a few months is necessary.

The abuse of **cocain** leads to symptoms resembling in many respects those seen in morphinism. Though in early phases of cocainism there is stimulation of certain mental faculties—thus, of association-processes—with exaltation and excitement, there follows progressive mental deterioration, with loss of attention-power, impairment of memory, of will-power, and of *moral*. The emotional state becomes unstable. Hallucina-

tions are marked, including those of sight and of common sensation, and as a result delusions of persecution, of suspicion, of jealousy arise. Physically the state resembles that due to the abuse of morphia, there being insomnia, anorexia, cardiac irritability, followed by weakness, tremor, uncertainty of movements, paræsthesia, alteration of reflexes, wasting.

The *diagnosis* has to be made from hallucinatory states due to alcohol.

Treatment is on the same lines as in the case of morphia, although in the case of cocain withdrawal may usually be rapid.

The attempt to cure the morphia habit by the use of cocain has ended in substitution of one habit for the other, and it is said that the cocain habit is of the two the worse.

Tobacco has many enemies, and after many battles have been fought, it has been shown that it may produce blindness, associated with distinct changes in the optic nerves. I never yet saw a case of insanity due simply to tobacco. I have seen aggravation of other nervous symptoms follow its use. I have met with nervousness, indecision, sleeplessness, and jealousy depending on the excessive use of tobacco. It is more common to find excessive smoking first upsetting the digestive functions, and then causing secondarily nervous weakness. Smoking in very young subjects tends to indolence and self-indulgence, and may thus be a cause producing disordered action or loss of control.

The **chloroform** and **ether** habit, with similar demoralisation, has been described, but I have not seen any such cases; I have seen all the symptoms of alcoholism produced by the excessive use of *sal-volatile* in one old man. The habit was so long established, that half-a-pint of the drug was

taken at a time. One peculiarity, too, of this case was that the patient considered himself a model of temperance.

Lead-poisoning. In general paralysis of the insane I pointed out that an endless variety of symptoms occurs similar to those found in such different diseases as epilepsy and locomotor ataxy; and with alcohol and lead similar symptoms may arise. It is doubtful whether some other mineral poisons do not produce similar effects upon the nervous system; but here I have only to deal with lead. I have seen acute mania following lead poisoning, and passing off with a removal of the cause. In one case in Guy's Hospital a woman had used a lead lotion freely, before admission, to a large open wound. This was followed by acute mania associated with a blue line on the gums. Other cases of acute mania have more recently been observed distinctly connected with lead poisoning. I have seen acute mania rapidly followed by symptoms closely resembling those of general paralysis, due to the same cause.

A man, aged thirty-two, was admitted into Bethlem who had worked as a clerk for some years in a lead manufacturer's office; great hesitation of speech, tremor of tongue, exaltation of ideas, emotional disturbance, and restlessness were present. On investigation, the patient's friends said (although I had found a blue line on his gums) that it was impossible for lead to be the cause of his troubles, because, as a clerk, he had nothing to do with the metal; but believing the blue line rather than the friends, I treated him accordingly, and he recovered, and explained the lead poisoning by the fact that depression in trade had caused reduction in hands, and an increase in his duties; so that not only had he had to do the correspondence, but he examined and sorted the white lead. Symp-

toms such as the above are now recognised as being associated with lead poisoning. Dr. Rayner is convinced that the symptoms may not only resemble those of general paralysis, but that lead may, in fact, start the disease itself; so that general paralysis may arise definitely from lead poisoning. At all events, I would say, from my own experience, that certain cases, with symptoms of progressive mental weakness and some loss of bodily power following lead poisoning, die, and in some cases have fits.

A third condition of mental disorder associated with lead is that following epilepsy which has its starting point in lead poisoning. There is nothing special in these cases, except that there may be more or less pronounced symptoms of paralysis, such as are seen ordinarily arising from lead.

There are many other substances the chronic abuse of which may be followed by symptoms of psychical degeneration; thus, various hypnotics, such as sulphonal, trional, paraldehyde, mercury, haschisch (Indian hemp).

In **pellagra,** a disease which is found in Italy, Egypt, and elsewhere, and which is said to be due to the ingestion of diseased maize, there are various symptoms due to intoxication of the nervous system, amongst them symptoms of acute and chronic mental disorder. The most interesting feature of the latter is that, in the later stages, the symptoms are sometimes undistinguishable from those of general paralysis, and pathologically the changes found in the brain and spinal cord are in many respects similar.

CHAPTER XXII.

VOLITIONAL INSANITY.

Obsessions—Imperative and impulsive ideas—Doubts—The obsessional impulse—Treatment.

"Obsessions are characterised by the sudden spontaneous appearance in consciousness of ideas which are recognised by the individual as irrelevant or unreasonable."—(Peyton).

Wesphal describes **obsessions** as associated (1) with normal intelligence; (2) with absence of primary emotional disturbance; (3) with imperative and overpowering ideas; and (4) with recognition by the patient of the abnormality of the ideas. Their number is infinite, and they vary with age, sex, education, and surroundings.

They generally occur in typical neurotics; heredity plays an important part.

Obsessional states may occur as temporary symptoms in any form of mental disorder, but true obsessions are generally chronic, slowly becoming more dominant, and thus more and more influencing the conduct of the patient. Though cases of unreasonable rage and passion may be related to obsessions, they are not necessarily so related. Totally unreasonable antipathies or affections have to be considered in this class when they influence the conduct. It seems to me that some hypochondriacal patients fall well within the definition of obsessions.

Among the most common forms we meet with are patients who have to count or name a number periodically when speaking or reading, others who

feel compelled to stop at certain intervals; some avoid in walking all cracks on the pavement, while others are impelled to touch the railings as they pass, or to touch articles of furniture before performing any act. Many habits of normal persons seem to be vestiges of some obsessional trick. In many cases uncertainty, *folie du doute*, arises, and may hinder all useful work, while the overpowering desire to wash, to wear gloves, or to change clothes, may be the one symptom. In many instances there is some sexual disorder associated with these latter cases.

Repetition of words or quite uncalled-for swearing has given rise to serious social disability.

The most important point from the social aspect is the obsessional impulse. In some there is spontaneous impulse to do something; it may be only to scream, or it may be to smash things; but in other cases it may lead to what appear to be criminal acts, such as setting fire to buildings, stealing or killing. In some the impulse is spontaneous, without apparent external stimulus; in others it only occurs when certain excitants are near. Thus the sight of a knife suggests using it, and a gun stimulates to shoot. I have seen several parents who dreaded eating with their children lest they should use the knives on them. Such persons may be suffering from a transient disorder which temporary removal from the family cures. It seems as if these were uncontrolled mental reflexes. Dreads, such as of heights or moving trains, are of the same nature. I should say that whereas most obsessions are very chronic and not easily cured, others, though liable to recur, do often pass off.

Hypnotic suggestion has been said to relieve these patients. Reasoning is forced upon one,

though one recognises its futility; kindly and judicious neglect of the mental symptoms while change of scene and companionship is tried may be of service. Very many persons with obsessions lead perfectly normal lives, and may not be known to be morbid but by their relations; others withdraw from social life altogether and become hermits. The obsessions rarely lead to permanent mental weakness. In women with distressing sexual obsessions the suggestion of ovariotomy has been made, but I feel great doubt as to the utility of the treatment.

CHAPTER XXIII.

IDIOCY AND IMBECILITY.

Causation of idiocy—Varieties of idiocy: genetous, microcephalic, eclamptic, epileptic, hydrocephalic, paralytic, traumatic, inflammatory — Idiocy of deprivation — Cretinism.

THOUGH from a developmental point of view this class of mental disorders is of very great interest, yet the little real good which can be done renders the care and treatment of idiots an employment which is trying and unsatisfactory. In considering idiocy, I shall refer to several classifications which have been made, and constantly refer to the most satisfactory book in English on the subject, that of Dr. Ireland.

Classifications.—Idiots and imbeciles may be classified according to their facial types; and Dr. Langdon Down has pointed out that there are to be found those having a special negroid type, while others approach the Mongolian in aspect. Such a classification must be looked upon as merely provisional. Other authors have divided the cases according to the degree of their mental acquirements or educability, and this division is convenient and natural in many respects. Thus, there are certain idiots who are but automatic beings, without any evidences of the action of the higher centres whatever; and there are others who, with higher powers, are still only able to move about, and to make use of a few words or sounds. A third and

still higher class may be able to walk and talk a little, and may be susceptible to the influences of

Fig. 33.—Normal cells of lower part of layer II. (pyramidal). × 325. (*Dr. J. S. Bolton's preparation.*)

education to some extent. Higher still, we may have imbeciles who are able to walk and talk, and

acquire to a greater extent than this, but who are nevertheless generally defective, and cannot be

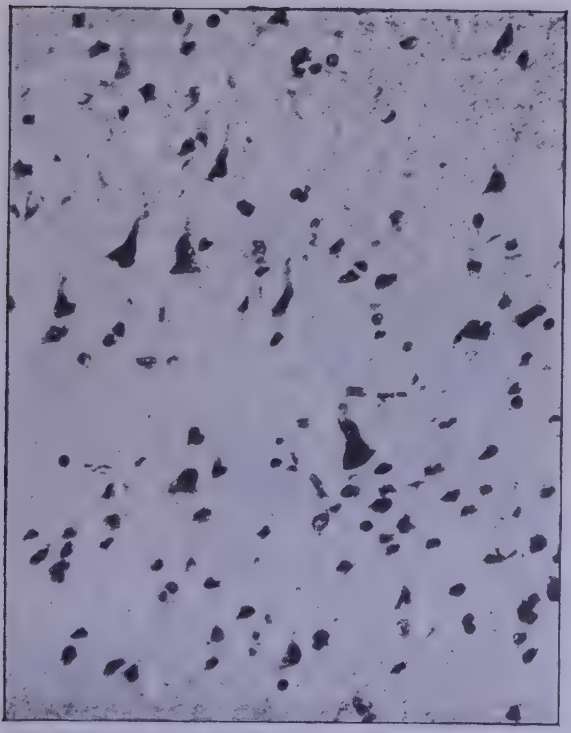

Fig. 34.—Cells of lower part of layer II. (pyramidal) of an idiot, showing malformation. The cells are distorted and small, with defective processes; staining uniform, there being no differentiation of cell-constituents. × 325. (*Dr. J. S. Bolton's preparation.*)

looked upon as ordinary children. In this last class there may be weak-minded individuals who

have special aptitudes (the so-called *idiot savant*); and here we may also meet with moral imbeciles, who may have mathematical, musical, or mechanical abilities; or we may meet with children

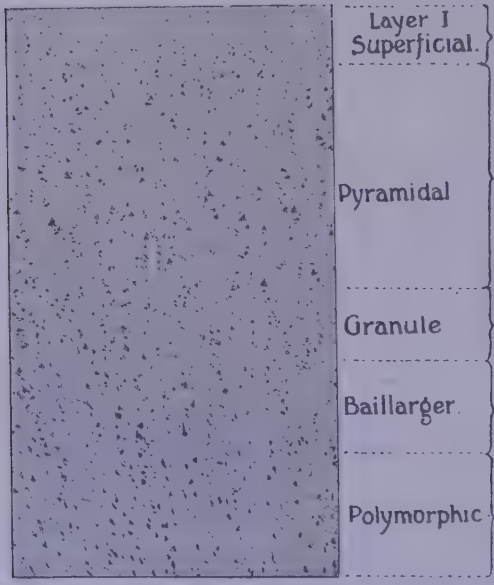

Fig. 35.—Cortex of marked imbecile, prefrontal area; showing deficiency of cortical layers and shallowness of cortex. × 84. Compare Fig. 10, p. 210, showing normal adult cortex. (*Dr. J. S. Bolton's specimen.*)

simply without moral sense. In both these divisions there sometimes occur cases with wonderfully retentive memories. Besides the above groups, there are cases in which the power of development is not altogether arrested, but is greatly delayed; the *feeble-minded* or *backward*: so that a lad of sixteen may have the mental capacity of a child

of six, and may be capable of indefinite development; intellectually such an one is always in arrears. In connection with the above cases have to be considered cretins, who, with special physical peculiarities, have mental deficiencies which may be of any of the above types, and in any degree.

Idiocy has also been divided according to its cause; for instance, the state may have been due, in the first place, either to *congenital* deficiencies, or to some *acquired* fault, to *deficiency of brain* or to a *deficiency of sense;* it may have followed *inflammation of the brain,* or resulted from *convulsions* started in teething. I prefer to look at the idiot from the more widely-considered pathological point of view; and I would say that idiots may be the result of morphological or histological deficiencies. Thus a child having only basal ganglia can necessarily only be an automaton; such cases constitute monstrosities. A child with porencephalus, having a deficiency between the ganglia at the base and the cortical layers (of greater or less extent, the space being occupied by fluid), is also necessarily weak-minded, there being a want of connection between the receptive and the constructive parts of the brain. In others, too, there may be deficiencies in the commissural or combining fibres, the halves of the brain existing, but there being no power of getting the various parts into harmonious working. In other cases there seems to be arrest in the brain-cell development, the layers of cells in the cortex remaining undeveloped (Fig. 35), with cells of embryonal type and immature fibres, and only partially entering into the many relationships for which they are intended. These latter changes may be the result of arterial alteration, or of inflammatory process such as those following injuries. In one special group there is a great

overgrowth of connective tissue at the expense of all higher tissue. Dr. Ireland's classification is:

1. Genetous idiocy.
2. Microcephalic idiocy.
3. Eclamptic idiocy.
4. Epileptic idiocy.
5. Hydrocephalic idiocy.
6. Paralytic idiocy.
7. Traumatic idiocy.
8. Inflammatory idiocy.
9. Idiocy of deprivation.
10. Cretinism.

There are some general questions which must be referred to before any special details are entered upon, and one of the most important of these is the **causation.**

I have no doubt that *inheritance* takes the first place in the production of idiocy: but it is an undoubted fact that insane parents may beget sane children, and that there are sane parents who produce only idiotic imbeciles or epileptic children. The relationships of inheritance are difficult to understand. I have seen several idiots whose mothers were insane at the time they were pregnant with them; and although I have heard of cases in which a fright during pregnancy has been said to produce idiocy, I have myself no facts to confirm the statement.

Insanity in father or mother may produce idiocy in son or daughter.

The insanity in the parent may have been temporary, or it may have been chronic or incurable, such as general paralysis of the insane. On several occasions I have met with insane parents whose insanity has not shown itself for years after the birth of children who have proved to be idiotic. In the same families in which one meets with insanity one also meets with idiocy. Dr. Ireland says, "Idiocy is, of all mental derangements, the most frequently propagated by descent." Mr. Ludvig Dahl showed that fifty per cent. of idiots had insane relations. Others

place the incidence of heredity at 70 per cent. Dr. Langdon Down believes that if the neurosis be present on the mother's side, the first children are most likely to be affected; and if on the father's side, it is the later-born children who will show the weakness.

One of the most common beliefs in reference to idiocy is that consanguineous marriages are among the most frequent causes of the production of this condition. In the popular mind, the marriage of cousins is sure to produce idiocy; but I am quite of the opinion of Mr. Huth, who most carefully studied the whole question, that consanguinity alone has little to do with the production of idiots. If the stock be healthy in mind and body, there is no extra risk in the marriage of cousins; the real thing is that when near relations marry, any tendency to physical or mental weakness is immensely increased; and therefore, if two members of a neurotic family marry, the prospect for the offspring must be bad. Mr. Huth went so far as to believe that, under favourable circumstances, consanguineous marriage was rather beneficial than otherwise. This I can believe may appear to be the fact; but the chances are that the greatly accentuated diseases of the related parents would cause much mortality in the weaker members, only the very strong surviving.

Much time has been spent, and whole armies of statistics collected, to trace the origin of this imperfect mental development, and, as a result, it seems to me that evidence has been collected in sufficient amount to prove that tendencies to degeneration in one or both parents, especially tendencies affecting the general or nervous systems, are specially likely to produce idiocy. That scrofula seems in some way to be related to weak-mindedness is shown by the number of

parents of such patients who die of *consumption*, and also by the number of idiots who suffer from some form of scrofulous disease. As Dr. Ireland says, most influences which lower the general health in the parents have been assigned as causes of idiocy; but, contrary to what might be expected, it does not seem to be a frequent consequence of *hereditary syphilis*. There is considerable difference of opinion as to the effects of *drunkenness* in parents upon the production of idiocy. Some, including Dr. Down, lay stress upon intoxication in the father at the time of the conception; but I must confess that it seems to me very hard to prove that the father was in such a state at the time of conception. Drunkenness, with its accompaniments of bad hygiene and enfeebled physique in one or both parents, is certain to produce a weakly offspring, and some such will be sure to suffer from idiocy. If idiocy be the result of degeneracy in the stock, it would be likely that children born of *aged parents* would tend to be less healthy than others, and some relationship between age of parents and idiocy is found to exist.

Other conditions, at present unknown, tend to the production of idiocy, and in *cretinism* one sees the special result of some general condition; and in the same way idiots are met with among the most healthy and sober families. It is a common experience to find a weak-minded youth or adult in any of the out-of-the-way villages in England, France, or in Scandinavia. The very capacity which man exhibits for development connotes a possibility for reversion to lower organic and intellectual types. Other circumstances have been referred to besides primary brain deficiency. Thus, children born *deficient in one or more of their senses* run a great risk of being weak-minded;

and a superintendent of a large deaf and dumb institution told me that his chief difficulty arose, not from the deafness and dumbness, but from mental weakness, which was always seen in children of this class.

Many writers, however, deny that idiocy in individuals with sense-deficiency is entirely due to the latter; they maintain that in such cases there is independent failure in the development of the brain.

Other causes which will be further referred to in the description which follows are *injury to the head*, before and after birth, *specific fevers* and *convulsions* in childhood. Specific fevers, such as scarlet fever, measles, probably act by setting up inflammatory conditions of the nasal and aural passages which spread to the brain-membranes.

In idiots and imbeciles the various "stigmata of degeneration" are found in greater or less degree, usually in abundance, about the head, body and limbs.

1. **Genetous idiocy.**—This term is used to comprehend all those cases which, starting in fœtal life, cannot be traced to any specific disease. The term is convenient, as including a series of cases not otherwise to be collected, although, as the majority of idiots are idiotic from birth, the term is hardly a happy one. In some cases morbid inheritance plays an important part, age or decay in the parents often existing; in others physical diseases are common, such as rickets and strumous disorders; the whole body is feebly built, there being torpor, with feeble circulation; the palate is generally keel-shaped, the molar teeth being closely approximated; teeth are late in appearing, and deficient in number. This point of the narrowness and height of the vaulted palate may be of considerable importance; for although this kind

of palate may be present in healthy individuals or in persons suffering from ordinary insanity, if it be associated with weak-mindedness or moral peculiarities in youth, I believe one is justified in saying that the tendency to moral or intellectual deficiency is congenital. The teeth in idiots of this kind may be worm-eaten and irregular in outline, but syphilitic teeth are certainly not common. Such idiots are generally short, with frequent occurrence of deformities; the ears are flat or irregular in shape, of large size, and often defective in one or more of their constituent parts; hernias are also present not uncommonly; testicles may be present or absent. These cases may vary in degree very considerably, the worst cases being speechless automata, often given to restless moving of head and hands. Of this group several varieties have been pointed out. Dr. Langdon Down and others have marked a variety closely resembling the Mongolian type of head and face. Other racial types are named from their resemblance to the Grecian, Ethiopian, Malayan, and American Indian.

An interesting group of what might be called sporadic idiots was described by Dr. Fletcher Beach and Dr. Hilton Fagge as *cretinoid idiots*: they are children of low stature and broad features, nose thick, mouth large and wide, hands and feet spade-like; they are late in walking, and almost invariably imbecile or idiotic to a degree. The distinguishing characteristics of these children are soft symmetrical protuberances on each side of the neck above the clavicles; these are merely fat masses. Some of these cases are described by Dr. Beach.* It suffices to say that these cases of apparent sporadic cretinism are rare, but appear

* "Transactions of the International Congress," 1886, Vol. III., p. 626.

from time to time in districts where neither goitre nor cretinism occurs.

Genetous idiots may be educated to a certain point, and both Dr. Down and Dr. Ireland say that a child born with defective intellect is as susceptible of improvement by physical and intellectual training as a child who has become idiotic by deprivation. When the idiot's physical strength and circulation are fair, the prospect is, of course, better than when they are feeble. There is no special pathological condition associated with the above varieties. Differences in shape of skull and synostosis of the sphenoid have been described, besides want in mass of brain and imperfect or defective commissural relationship. General measures are the only ones likely to be of any service beyond special systems of practical education. And here one would say that the fundamental principles of the education of idiots will depend on a simultaneous appeal to several senses at the same time; so that when an action is desired, the suggestion for it should be made to sight, to hearing, and touch; music and drilling must always be looked upon as two of the most important aids which exist for the development of the weak-minded of this and other descriptions.

2. **Microcephalic idiocy.**—The chief characteristic pathology of this group of idiocy is the fact of cerebral deficiency. In some cases grotesque experiments seem to have been made by nature to show with how small an amount of brain the human being may exist. As a rule, the average size of heads of idiots is smaller than in the case of healthy individuals; in the class under consideration the difference is great. Whatever may be the general feeling as to the relationship of size and shape of head to mental ability; whatever view be taken of the value of phrenology, it must be

admitted that there is a size below which any real mental capacity cannot be found to exist. Dr. Ireland says that below seventeen inches in circumference the manifestation of intellectual power will be feeble, and he gives the term

Fig. 36.—Microcephalic idiot.

microcephalic the limit of seventeen inches. Some parents have produced a series of microcephalic idiots, including one case of twins. The smallness of the head may depend upon partial or general deficiency—there is simplicity or poverty of the gyri, with microgyria. The cerebellum is relatively larger than the brain. The aspect of a typical

microcephalic is extraordinary, and well seen in any idiot asylum.

Microcephalic idiots of an extreme degree are, from time to time, exhibited by showmen as belonging to some lost race, or to a people living on trees or underground. Most of these creatures are short in stature, and frequently active in movement; they are restless, often quick of perception; the prognosis will depend, to a great extent, on the size of the skull at birth, extremely small-brained children developing little either in body or mind. They sometimes are supposed to resemble animals, and have been described as birds, sheep, apes, and the like. In the most advanced cases they have no power of feeding or protecting themselves. If of a slightly higher type they may be amused by trifling things, may have strong tendencies to imitation, and may be able to get about and help themselves up to a certain point; fortunately sexual power is absent, or at all events defective. It is still an unsettled point as to whether the brain or the skull ceases to develop; whether the brain is restricted in its development by the premature ossification of the skull, or whether the skull ossifies over a brain which has ceased to develop. Dr. Ireland thinks that the brain ceases to develop, and not that it is arrested by the skull. Very little can be done in the development of these cases. Healthy surroundings and supervision, with care as to feeding and warm clothing, are about the best means of prolonging life and developing some little intelligence.

3. **Eclamptic idiocy.**—Any serious disturbance of the nervous system in early childhood has, as I have said, a tendency to arrest development or even to destroy what has already grown. Any cause which gives rise to convulsions in childhood

may be the cause of idiocy or imbecility. Fortunately but few of the children who have fits

Fig. 37.—Malformed and defective Betz-cells, from the cortex of a microcephalic idiot. × 325. Compare with normal Betz-cells, Fig. 20, p. 374. (*Dr. George A. Watson's specimen.*)

become idiotic. Dr. Shuttleworth found that at Earlswood fourteen per cent. of the cases of idiocy

were ascribed to teething convulsions. Cases arising from convulsions have little chance of improvement. It seems as if the convulsions had destroyed the power of further development, at all events of higher intellectual development. Some of these cases can be trained to mechanical work.

4. **Epileptic idiocy.**—The eclamptic idiot differs from the epileptic idiot in the fact that in the former the fits were but the starting point of the diseased process, and having wrought their evil, ceased, whereas in the epileptic patient the fits depend not so much upon a reflex irritation as upon some organic brain change, which, continuing in force, causes the fits to be constant. Epilepsy, whether in the form of severe fits, or only of slight losses of consciousness, may occur in patients who are already idiotic, and may in no way be connected with the production of the weak-mindedness; both the fits and the idiocy depending upon the same pathological condition of the brain. But the symptoms in the class I am now speaking of depend for their causation upon the recurrence of epileptic fits. In speaking of epilepsy, I have already shown that in adults the tendency is to produce weak-mindedness, and it may easily be understood how disastrous must be the result of recurring fits occurring in the undeveloped child. It matters little, if at all, what the cause of the epilepsy may be, although it is certain that the tendency to weak-mindedness is increased if there be a strong neurotic inheritance, as the patient in that case has a strong predisposing cause, and an equally strong exciting one. As I have said, the frequency of the fits and their early development are the two most important facts in this relationship.

Epilepsy occurring before seven years of age is certain to leave the patient weak-minded. The

epileptic idiot is said to be the drollest inhabitant of the idiot asylum. He is often wild, untractable,

Fig. 38.—An epileptic idiot.

and irritable, many of his symptoms resembling the symptoms of ordinary insanity. Some of these cases, when the fits are absent, appear as if they were making great improvement, but this appear-

ance is deceptive. I was consulted some time ago about a child who, up to seven or eight years of age, had been perfectly healthy; epileptic fits of a slight character appeared at rather long intervals; from that time there had been an arrest

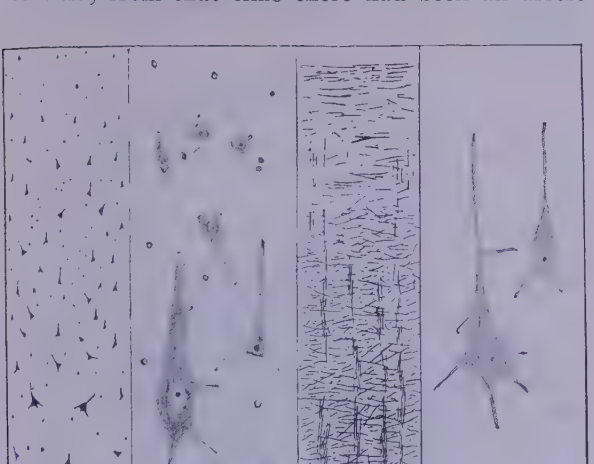

Fig. 39.—Diagram of the motor cortex in amentia and epilepsy, drawn to scale, showing diminution of cortical grey matter. Compare with normal cortex, Fig 21, p. 375.

First column. Strip of cortex, stained by Nissl's method, showing atrophy of cell and irregular arrangement of column. Low power.

Second column. Details of Column 1, more highly magnified, showing the cells devoid of Nissl granules owing to status epilepticus.

Third column. Strip of cortex, stained by Weigert's method for fibres, showing diminution of medullated fibres. Low power.

Fourth column. Pyramidal and Betz cells, more highly magnified, stained by Cajal's method; showing comparative deficiency of fibrils.

in her mental development, but there was no marked intellectual degeneration. As there was

some bowel irritation, I treated her for worms, and later with tonics. She recovered for a time, and seemed to regain some of her mental ability; so much so, that I was tempted to give a favourable prognosis, but the fits again came on, her mind rapidly deteriorated, and she had to be sent to an asylum.

This is a very good example of the course which such cases are likely to take, giving some ground for hope at the time when the fits are in abeyance, which hope speedily proves illusory when the fits recur. It is extremely rare to cure epilepsy, and idiocy dependent upon epilepsy is scarcely more curable, although it may well be remembered that the epileptic condition is one depending upon so many minor conditions, that it is not to be wondered at that epilepsy, from time to time, is cured or outgrown, and intellectual life started afresh; hence, most writers on idiocy say that idiocy depending upon epilepsy is more curable than most other forms, except that of idiocy due to deprivation. In treating such cases, the invariable amount of bromide of potassium will be given; but I prefer to follow the advice of Dr. West: "The diet should be mild, nutritious, but usually stimulating, and, as a general rule, should include meat comparatively seldom, and in small quantities. I have certainly seen epileptic fits increased in frequency and severity by an abundant meat diet, and diminished in both respects when a diet chiefly of milk and vegetable was adopted."

5. **Hydrocephalic idiocy.**—Hydrocephalus consists in a considerable increase of the cerebral fluid (subarachnoid and intraventricular, especially the latter). It may end in death, may end in mental recovery, or may leave the child more or less weak-minded. The hydrocephalus may come on before or after birth; the special cause of its

development is still doubtful, although there seems to be a distinct relationship between hydrocephalus in the children and physical degeneracy in the parents, hydrocephalus being thus associated distinctly with tubercle. Hydrocephalic persons may be of every shade of intellectual capacity, some

Fig. 40.—Hydrocephalic idiot.

growing up to adult life and keeping their reason; others passing into dementia as the result of some acute mental disturbance; the cases of which I am now speaking particularly never develop the average mental capacity. It has been remarked that hydrocephalic idiots may be weak primarily from brain change, or they may suffer chiefly in consequence of deprivation of one or more of their special senses. Blindness and deafness may occur

in consequence of hydrocephalus. The chief noticeable symptom is the change in the shape of the head, there being a marked enlargement in the frontal region, which extends right round the skull. This group of idiots provides most of those with really big heads. The hydrocephalic head resembles a ball in shape, the widest circumference being often at the temples; there may be flattening posteriorly, and the palate is said not to be vaulted, but the teeth are frequently good. It is said that in hydrocephalus the fontanelle is raised; in rickets it is depressed.

I shall later refer to cases in which the brain is hypertrophied, and in which the skull also becomes much enlarged. A third form of cranial enlargement which may exist with idiocy, is that connected with congenital syphilis, and in this case the presence of rashes and the peculiarity of the teeth may serve to differentiate, when taken with the fact that the syphilitic skull is irregularly bossed, not uniformly enlarged. The size of the skull does not imply a relation between its malformation and the amount of intellectual deficiency, some hydrocephalics with huge heads growing to maturity, and being fairly intellectual; and even among idiots the larger-headed hydrocephalic idiot is not necessarily more idiotic than one less affected. Hydrocephalus may produce idiocy first, and then a rapidly fatal termination; but in some cases there may be an arrest of the hydrocephalus, with considerable power of intellectual culture possible. Probably the chief danger in these cases is associated with their tubercular diathesis. Dr. Ireland says they are, as a rule, soft, gentle, and trusting in disposition, although awkward in movement. With the hydrocephalus there may be fits, or local paralyses, and then the prognosis becomes worse. These

cases require the treatment which would be given to unhealthy children with a tubercular history. Cod-liver oil had better be given in one of the many partly digested forms, stimulants with abundance of milk, and for preference a seaside home should be resorted to. I believe strongly that good results are produced upon some of these cases by the frequent administration, in small doses, of alcohol in one form or another.

6. **Paralytic idiocy.**—In every asylum there are hemiplegic or monoplegic children, with limbs drawn up, withered, and contracted. The origin of the paralysis may be from some vascular lesion (although intracranial hæmorrhages are rare in children), a tubercular deposit, or some other growth, or as the result of want of development, or from inflammation of one side of the brain. Injuries occurring before, during, or after birth may undoubtedly prevent further development; although one half of the brain may be damaged, it does not follow that there is intellectual deficiency. Paralysis may exist from birth without any marked arrest in mental growth; but, on the other hand, certain cases, with half of the brain injured, develop neither in mind nor in muscle.

These cases have been called paralytic idiots. One of the limbs may entirely cease to grow. A special type has been described in which the temporal bone on one side has become absolutely flattened to such an extent that the one hemisphere is considerably less than half the size of the other. Such a patient would have a tottering gait, a stupid appearance, and a dulness of perception, although some possibility of intellectual development might exist. I would say in reference to these cases that with marked paralysis from birth there may be equally marked mental deficiency, but this is not essential. The pseudo-hypertrophic

paralysis, Duchenne says, may be rarely associated with weak-mindedness. In the treatment of paralytic idiocy, the general and hygienic measures must, of course, be tried, and it is also necessary that electricity, friction, and passive movements should be used for the weakened limbs.

Fig. 41.—Paralytic idiot.

7. **Traumatic idiocy.**—Dr. Ireland places in this group idiots who have received some injury to their brains which may not have left any permanent injury apparent, and he would compare them to those cases of ordinary mental weakness which follow from so-called concussion. It certainly strikes one that it is not uncommon to meet with cases in whom a shock, physical or moral, seems sufficient to change the whole vital relationships

of the individual, so that from that time he is either a changed being, or one with definite tendencies to degeneration. Injuries, it is said, without producing signs of inflammation, may cause weak-mindedness, or inability for development, in children. It seems to me that it is the sudden injury which does the harm, and that comparatively little injury appears to have been produced by the mutilations which fashion in the shape of heads has so frequently caused among savage races. It seems strange that, if sudden shocks to the brain should produce idiocy, more children are not born fools. According to some, the right of primogeniture rests upon the danger which a first-born son has to run at his birth.

Statistics still leave it uncertain as to the relative number of first-born children that become idiotic; but the evidence seems to me to point slightly in favour of the belief that there is greater danger to first-born children, especially if they are males. Idiocy does not seem to follow unduly on instrumental labours. It seems certain that injuries before or after birth may cause idiocy; but that injuries occurring later, in the first few years of childhood, are still more dangerous than intra-uterine injuries. The prognosis depends very much upon the general physical development. Most of these cases are said to belong rather to the imbecile than the idiotic type.

8. **Inflammatory idiocy.**—Inflammation and arrest of development may follow on injury; but this special class is intended to include those in whom inflammations of the nose and ears, which are associated at times with contagious fevers, may spread to the brain membranes. Such lesions, as a rule, prove fatal; and although parents are apt to consider idiocy as a consequence of fever,

it is probably more often the fact that the weakness which had existed all along was not noticed till at the age when these fevers commonly occur.

Inflammation of the brain or its membranes undoubtedly may occur before birth, in which cases the causation of the disease is not cleared up till after death. As might be expected, the grades of idiocy from this cause vary considerably.

Under the head of inflammatory idiocy is considered that of *hypertrophic idiocy*. In this branch, of which I have seen several cases under the care of Dr. Beach, the skull is usually much enlarged; the enlargement is more general than in hydrocephalus. No known cause has been discovered for this affection. There may be great increase in size of brain without any marked idiocy on the one hand, and without intellectual increase on the other. Some of the children have been described in whom precocity existed. Most of the cases die early, some with paralytic symptoms, with or without fits. The distinctive diagnosis rests upon the observation that in hydrocephalus the increase is most prominent at the temples, and in hypertrophy it is most prominent above the superciliary ridges. In hydrocephalus the width between the eyes is increased. In Dr. Beach's second case the prominences above the superciliary ridges were well marked; the brain was very heavy, weighing 62 ounces. Connective tissue increase seems to be the chief histological change in these cases, and the mental symptoms appear to be due to the gradual suppression of intellectual function caused by pressure. When the calvarium has been removed the brain behaves *post mortem* as if it had been subjected to immense pressure, and it is impossible to replace the skull-cap. Such a condition is practically hopeless.

9. **Idiocy of deprivation.**—I have already referred to the effect of sense-deprivation, and this class includes those in whom mental development was defective in consequence of the gateways to knowledge being closed. Dr. Ireland properly says that the organ of mind deprived of sense-channels is like a seed which does not sprout because it

Fig. 42.—Hypertrophic imbecile.

is kept away from sunlight and moonshine; whilst the same organ when congenitally defective is like a seed in which the germinal faculty has been destroyed. In connection with this group, the ever-memorable case of Laura Bridgman, in whom all the senses but that of touch were destroyed, is to be remembered.* This case shows clearly how, with sufficient time and pains, the deficiencies due to degeneration of one sense can be made up by the training of others; and the important consideration is this, that idiots who are idiotic

* See *Journal of Mental Science*, vol. xxi., p. 893.

or imbecile from want of one or more senses may be developed to a very considerable extent if treated sufficiently early. If such children have been allowed to run wild till they are twelve or thirteen years old, it is extremely difficult to do much for them. Early methodical training is the only thing to look to.

10. **Cretinism.**—Associated with all the natural beauties of mountain scenery one meets with the most deplorable class of idiots called cretins. The causation of their condition is still doubtful, although it has been observed and studied by many able observers. A definite relationship exists between cretinism and goitre, and there seems to be some relationship between limestone districts and the presence of goitre. Wherever goitre exists limestone seems to be present, and where goitre has had its home for generations cretinism is common. In England, in several districts, goitre is common enough; but my personal experience of some parts of Cumberland, where I saw hundreds of goitrous people with families, led me to believe that something was wanting in England for the full development of cretinism. Although one or two cretins existed in the district I refer to, such cases were very rare.

The aspect of the cretin, especially with the large goitre, is characteristic: a flat broad face, thick lips, and a large mouth, a flat nose, with depressed root, and slanting eyes, big expanding ears, the whole carried by a squat dwarfish creature with a sallow, unhealthy complexion. In these cases the facial aspect has been traced to the sphenoids, and the premature ossification of the base of the skull has been looked to as the cause of the condition. And it is interesting to remark that in one case of cretinoid degeneration in a woman (myxœdema) which I had

Fig. 43.—Cretin, under treatment, aged 14.

in Bethlem, there was great overgrowth of bone, with exostoses all over the alæ of the sphenoids. So much for the causal relations of cretinism.

Fig. 44.—The same patient as in Fig. 43, aged 14.

It is found in Sardinia, France, Austria, Switzerland, and the Pyrenees. It is met with also among the Andes, and the Himalayas. It occurs in

Fig. 45.—The same patient as in Figs. 43 and 44 aged 19, after treatment. (*Culdecott.*)

China, Sumatra, the Rocky Mountains of America, and in Madagascar. The condition is not necessarily hereditary; but it is noteworthy that cretinous or goitrous parents may produce cretins

if among their native mountains, but the same parents may produce healthy children in other districts.

Every variety of weak-mindedness may occur with cretinism. In some, only the slightest moral or intellectual defects owe their origin to this condition, whereas in others complete absence of mind or power of mental development is due to this cause. Some children are met with who from birth have irregularly-shaped heads. They have the conformation of features I have described, and although generally the child develops slowly, cases may occur in which physical development is fair. The appetite is often ravenous; they eat much and sleep much; they are placid and expressionless. The abdomen is round and tub-like, limbs are small and feeble, teeth generally irregular and scattered, speech may be, and often is, slow in development, and stammering when it does come. Symptoms generally appear before the fourth year, and rarely come on after the seventh. There are more male than female cretins. Hearing seems to be more defective than seeing; taste and smell are often deficient, and feeling, if not dull, is often confused and with false impressions. Intellectually there is every degree of obtuseness, so that in the lowest or full cretins the life led is a purely negative one; as we get higher, speech and desire may be present in rudimentary states, and in the highest cretins we meet with little beyond imbecility, with more or less moral deficiency. With all the above conditions may be associated complications, such as epileptic fits, or tubercular tendencies. The prognosis will be rendered more difficult, and the hope of relief will be reduced, if any such complications exist.

The one *treatment* is the early removal from the dangerous neighbourhood. The mother of a

cretin should be removed from the neighbourhood. When the mother of one cretin is pregnant she should be removed, and no second child should be allowed to be born where the danger exists. In any case, great good may be done by change of drinking-water, change of surroundings, associated with healthy nutritious food. Iodine alone has been tried and has failed, iron in one shape or another being much more useful.

In these cases, as in most others of mental weakness, regulated gymnastics and drilling are useful additions to the treatment.

There are a few more special points to which one may refer before leaving the subject of idiocy. For any special study of idiots one must not only take in detail the deficiencies which may possibly exist associated with weak-mindedness, but consider also the shades and degrees of these complications, and also notice the secondary results following in the course of the development of children of weak mind. As I have said before, in cases of nervous disorder or deficiency the whole body suffers. In the great majority of cases the aspect of the idiot is repulsive; the stature is short; the habits inhuman; there being in one case a neglect of personal cleanliness, and in another uncontrolled appetites. Idiots unfortunately frequently beget or bear children, such children being all but certainly idiotic. Besides, what has been described as acute mental disturbance may occur in children whose nervous systems are not sufficiently stable to recover from these attacks. Mania I have referred to as occurring in early childhood, and resulting in weak-mindedness. Melancholia, too, with suicidal tendencies, has been referred to under similar circumstances; it must be remembered that among idiots there may be corresponding nervous disturbances, so that

maniacal outbreaks or melancholic attacks may occur in these patients. The child who has attacks of mania, being idiotic, may again become quiet and tractable, only perhaps to have recurrent outbreaks of mental disorder. In every idiot asylum there are some specially bad children who seem to correspond to the cases of chronic mania in ordinary asylums; such patients are not only very troublesome, but are not likely to improve.

To sum up: idiocy and imbecility are but degrees of weak-mindedness, in which one or more of the factors of mind are partly or wholly undeveloped; the condition may depend upon changes occurring before or after birth, and is largely dependent upon nervous inheritance. These cases are only partly curable; the most that can be done with a great majority being to try to render them less repulsive than they are, and to teach them some mechanical arts. These cases are unsuitable for an ordinary asylum, and require either a special institution or a separate block of an asylum. Present provision falls far short of these requirements.

CHAPTER XXIV.

RESPONSIBILITY OF LUNATICS.

Responsibility—Different points of view of the medical and legal professions—Fallacy of the legal view of lunacy—Crimes which may be due to insanity: theft, homicide, suicide, infanticide, etc.—Testamentary capacity—Other practical and social matters connected with insanity.

I CANNOT, within the scope of this work, pretend to enter upon any discussion as to the actual and definite **legal responsibility** of persons of unsound mind, as such a discussion would necessitate a full exposition of the foundations of the criminal law in England, and the application of its principles to the *technique* of insanity, together with a copious reference to cases which have arisen in respect of such application.

The medical and legal professions have always been somewhat at variance upon this head; the difference of opinion has doubtless arisen from the difference of motive on either side. The physician, looking upon his patient as an individual to be *cured*, is tempted to extend the boundaries of disease, and waives the question of responsibility altogether; the lawyer, whose business it is to define that which has to be *condemned*, is impelled to narrow them, and search for points of resemblance between the *terra incognita* of mental perversion and the lines he has already laid down. A too free extension of either view is equally undesirable, and the physician must on his part be willing to admit that a system of *laisser-faire*, and indiscriminate exoneration from all blame, is

out of harmony with both the experience and expressed motives and wishes of the human race, and is to be avoided in practice. Experience teaches us to look upon evil as a necessity, and when we have done this we seek for the best possible arrangement of that which we cannot avoid. Thus we have the foundation of the criminal law in its relationship to morals; and as it is endorsed by the *consensus* of public opinion, it behoves the physician as a unit of the social mass to conform to it, and to furnish such facts and experiences as he may deem likely to facilitate and clarify its procedure.

The question of responsibility is in truth not a medical question at all. It may be a question either of philosophy, of law, or of common sense. But neither the philosopher, the lawyer, nor the ordinary individual, when they have to deal with cases of unsound mind, can move a step without the knowledge of the necessary *facts*. These are the province of the physician, and if he himself does not undertake to discuss the question of legal or philosophical responsibility from the wider point of view, it is nevertheless desirable that he should supply such materials toward the ultimate building of the edifice as are the result of his own experience; and in cases of responsibility having to do with the ordinary social relationships of persons of unsound mind, he is from the nature of his position singularly capable of pronouncing a just opinion and proffering advice to others.

As to the law (which is chiefly "judge-made," or depends upon the replies given by the judges to the questions proposed by the House of Lords in the case of McNaughten, occurring in 1843), it is now, I think, a matter of general opinion that it requires considerable modification. I cannot but

think that the time may shortly arrive when physicians will take upon themselves to furnish a *consensus* of opinion as to the lines upon which it should be re-modified, so as to benefit by the important results of recent scientific and medical research. The broad and sweeping provisions of the law cannot with justice be applied to insanity as a whole, but there must be given such *data* as will serve to classify the variable will-affections to which persons of unsound mind are liable; and the manner in which such, as far as they are owing to disease, may assist in producing crime.

One of the difficulties which have arisen has been that lawyers have definitely demanded precise lines of demarcation to be drawn between sanity and insanity; and also between conditions in which punishment should be administered, and conditions in which the person must be looked upon as irresponsible. Specialists know from experience that there are persons dwelling, as Dr. Maudsley would say, on the borderland of crime and insanity, who may at one time be more insane and less criminal, and at another more criminal and less insane. That, in fact, sometimes they merit punishment, and at others may require treatment. Just as we have seen that there is no clear distinction between sanity and insanity, so we must admit that there is no possibility of drawing by definition any clear distinction between liability for acts done and irresponsibility. Therefore it is necessary that the provisions of the criminal law should be clearly defined and categorically stated with respect to all the leading circumstances of the case.

One of the main standpoints of the law hitherto has been to administer justice upon the supposition that delusions are essential in lunacy. Another has been to enquire whether the lunatic was

capable of distinguishing between right and wrong at the time of the act. Both these principles, although they might be made use of as useful aids to any enquiry, are radically defective, inasmuch as they exclude from consideration the most important medical evidence; that is, the most important facts of the case. A delusion, as the physician well knows, is never the expression of the whole of the disordered motives which directly or indirectly affect the causation of the act. And those who are most of all conscious of the difference between right and wrong are often those who suffer from the strongest influences of disease which overrule their knowledge. Again, it is highly unjust to say that because a person does not appear to have a delusion as the foundation for his act, he must be held responsible. It is not necessary to have a delusion to annul responsibility. A person may in acute mania kill another in the mere buoyant exercise of his feelings of strength; and although he may have delusions, the loss of self-control and not the delusions was the cause of the accident. This loss of self-control is one of the most difficult points to be established as a symptom of mental disease. It is admitted that the epileptic may commit a crime, being unable to control himself, his mind being in much the same condition in which his body is when seized by epileptic convulsions, and quite beyond his control. Other conditions may give rise to acts which are uncontrolled, and which no ordinary amount of pressure or change of surroundings would enable the person to control; and here arises the difficult and complicated question, Under what conditions is this loss of self-control a symptom of mental disease, and under what conditions is it to be looked upon as the result of conditions which might and ought to have been

checked by the patient? In some circumstances, the temporary loss of control is due to self-indulgence in the individual; and then rightly the person is considered to be responsible for having knowingly allowed himself to get into a position in which he would become unable to restrain himself. But even this is a dangerous principle to admit, for it is easy to see that a very slight dereliction on the part of the individual might lead to an extremely difficult position.

And, again, there can be no doubt that a vast number of cases may arise in which the insanity of the patient and the impulses from which he has suffered in consequence of nervous disease, if not sufficient to exculpate him from blame altogether, ought nevertheless to be alleged as strong extenuation of his offence. The physician claims as a general principle that an insane person, *whatever* his delusions or other mental symptoms may be, must be considered altogether irresponsible for any criminal act he may commit; and I think the tendency of legal reform should be to make full allowance for the influences of disease upon conduct.

Criminal acts may arise from delusions of one kind and another, from hallucinations of the various senses, from loss of control, which may act in various different ways; the most difficult point of all to decide upon is the so-called impulsive insanity, in which a patient loses self-control, and commits an act the details of which he remembers, but which he truthfully says he was unable to prevent. Such insane impulses undoubtedly do occur, and I have been consulted by patients who have told me that loss of control of this kind would come upon them like a storm, and that they would seek shelter anywhere to avoid the danger which might arise to themselves or others. It is simple

enough when these impulses occur in persons who have suffered from mental unsoundness, but it is much more difficult when the only evidence of insanity is the existence of these impulses; for it may be said that they are but the result of uncontrolled delight in power, which is common to all. I should hesitate before accepting impulse, unless I had evidences of insanity in other members of the family, or neuroses such as neuralgia or epilepsy in the patient himself.

Having offered these general remarks upon the subject, I will now confine myself to some specific details, all of which will, I think, furnish evidence of the extreme difficulty that exists in making any broad distinction between responsibility and irresponsibility in individual cases.

I may first, however, remark that it must be admitted that in the great majority of cases of insanity, ordinary motives appeal to the person of unsound mind in a way precisely similar to that in which they affect the sane. There are patients in asylums who can be guided by anticipated pleasure, or by threatened deprivation of enjoyments, and therefore who must be looked upon as so far controllable, if not responsible. A patient is frequently told that if he will control himself for so many days he shall see his relations; or, on the other hand, he may be told that with self-control will come liberty of spending a day away from the asylum. In fact, in this way alone can hospitals and asylums be managed for the benefit of the patient. But, although managed in this way, it does not necessarily follow that the extension of the belief in power of self-control is justifiable when a crime has been committed; there are certain classes of patients who at once must be recognised as likely to commit crimes against society if at large, without there being any

idea whatever that they can be considered as responsible. Some of the specific details to which I shall now refer will illustrate this.

The subject of *alcoholic intoxication* is one which presents many difficulties. A person, say, is given powerful stimulants, masked or concealed in some way; or being weak, or suffering from an old injury to the head, an amount which formerly would not have affected him now produces a great effect. In a state of acute alcoholism he commits a crime, and doubtless would be considered not guilty; but if he has experienced several times the danger which he incurs by taking stimulants even in small quantities, and yet continues to indulge, and then perpetrates a crime, he may justly be considered responsible, even although it may be proved that by inheritance, or in consequence of injury to the head, he is especially liable to be affected by stimulants. Next, if, in consequence of intemperance, he becomes slowly affected by mental disorder, and in a state of delirium tremens he commits a crime, he will probably not be considered fully responsible. If, instead of delirium tremens, alcohol produces chronic insanity or general paralysis of the insane, and in this condition of genuine insanity he does harm, he will not be considered responsible for his acts. Thus it will be seen, from the above example, how complicated are the relationships between responsibility and irresponsibility.

Theft may be a sign of mental disorder. The general paralytic who believes himself immensely wealthy, and who thinks that the whole world is his, can hardly be blamed for helping himself to what he believes to be his. Again, there are certain weak-minded persons, especially those with insane inheritance, who may be incapable of education as far as the rights of property are

concerned. In many states of weak-mindedness following acute attacks of insanity there is a tendency to collect rubbish of all kinds, and to pilfer generally, and the pilfering may be done with all the apparent design and consideration of a skilled thief. It has been said, too, that epileptics are dangerous in a similar way. Theft is common in general paralytics, in imbeciles, and in patients suffering from the effects of acute insanity. There are other crimes against property which may well be considered under the same head, certain of them having been classified by former writers as independent diseases. Thus we have heard of *pyromania* in the same classification as *kleptomania*. As a rule, monomania of this kind is either the result of imperfect intellectual and moral development due to strong nervous inheritance, or else is the vestige of a nervous storm which has now passed. I have met with one or two cases in which lads of from ten to fifteen have been pyromaniacs, and have been the cause of endless trouble, in consequence of their tendency to burn or destroy everything which interfered with their immediate comfort.

Suicidal and homicidal maniacs have been specially classed in consequence of their grave relationship to the community at large. As far as suicide is concerned, I have already devoted attention to this point; but here I shall refer to conditions leading to homicidal impulses as seen in asylums, and from these will be seen some of the chief dangers to society arising from insanity.

Homicide may be the result of simple uncontrolled passion, the loss of control following physical or mental weakness; it may follow, as we have seen, a delusion as to persecution, patients being more especially dangerous when they believe

that their strength, moral character, or situation is being affected by conspiracy or plot; or when they hear voices telling them that an organised body like the Jesuits or Freemasons is going to injure wife or children. Probably the most dangerous of all patients are those who distinctly believe themselves to be persecuted, or hinted at; such patients are marked examples of the danger which arises from these cases.

Homicide or suicide may occur as a natural outcome of nervous sensitiveness. One patient knocked another down because he coughed; and he attacked another weak-minded patient because he pushed his bedroom door twice; he said, after attacking him violently, that if he did it again he should murder him, and I believe he would have done his best to that end, if not prevented. To show the extreme danger there is with such cases, I may say that, after careful consideration and a prolonged interview with this patient, he told me that although he abhorred violence, he felt that he must protect himself in some way; and that as soon as he found annoyances beyond his endurance or control, he should destroy himself; and that he would leave it to me to judge whether he could be deterred from his end if once he determined on it.

Violence, again, may arise from a natural outgrowth of insane vanity; some patients are sources of danger from the way they assert their power and importance. One patient in Bethlem attempted to murder two others, because one placed his hands upon him, and because the other did not sufficiently comprehend his exalted position; the history of the man showed that for years he had been slowly passing into a condition of pride and unrestrained passion only compatible with insanity.

Homicide or suicide may be the direct result of what is called by patients "influence." In some there is a feeling of weakness and inability to decide upon what is best to be done, but, on the other hand, they are conscious of their actions, though they cannot prevent themselves from following certain courses. This weakness, associated with the tendency to action which they cannot control, they call "influence." On the other hand, there are similar cases under "influence" which, without in any way describing themselves as weak-minded or feeble of purpose, say that there is something within them driving them to action; some such cases call the motive power the devil, but others leave the influence unnamed. In some patients, neither simple loss of control, delusions, hallucinations, persecutions, nor influences have any effect in the production of homicidal tendencies, but simple weak-mindedness seems to be connected with a childish tendency to destructiveness, and therefore the crime is a perfectly wanton, causeless act.

After all, the difficulties which arise in cases of homicide are not such as can be so readily cleared up even when the patient has been under observation in an asylum. I would say that, in considering a murder, the first question to be asked is, What was the assigned cause for the crime? was it the natural development of the man's surroundings and habits? To my mind certain crimes themselves are sufficient evidence of mental unsoundness. If a person with or without some sudden shock become completely changed in his domestic relations, if the man who was a good husband and kind father kills wife or child, without there being any established delusion, I think the crime itself is sufficient to cause a *primâ facie* belief in the existence of mental unsoundness.

The chief points, then, are the apparent carelessness of the crime, the want of relationship between the crime and the supposed end to be attained, the relationship between the crime and any delusions, the establishment of any insane or nervous inheritance, or the proof that the patient himself at one time or another has been of unsound mind or epileptic. Next after the consideration of the causation of the crime itself and its surroundings, it is important to obtain evidence as to acts immediately preceding and immediately following the deed, as well as to find out the details. Insane patients possessed by delusions, or driven by "influence," may nevertheless nerve themselves to act by taking stimulants, and yet this must not be attributed to sanity, nor must the crime itself be laid to the charge of drink.

A crime may be committed, and when the perpetrator is discovered, or when he gives himself up, he may appear to be quite reasonable. This is especially the case in epileptic and impulsive cases. After the outbreak of passion there may be a re-establishment of the intellectual balance, and it may appear as if with the act of violence temporary sanity at all events has returned. It is difficult to get the lay mind to understand that acts of this kind can really be due to temporary insanity. But the same holds good both with suicidal attempts and with homicidal attacks. There may be almost immediate improvement following the outbreak.

One special subdivision of this subject may be referred to here, namely, *infanticide*. To begin with, concealment of birth, which is the first degree of this crime, may begin, in a person of unsound mind, with ignorance of the fact of birth. In one case I saw a woman with a fully developed child in the bed, the mother having been delivered

without any evidences of pain, so that, although there were neighbours in the same house, the delivery took place without their knowing it; yet the mother herself said, and I believe truthfully, when I first saw her, that she did not know anything had happened. A woman, then, may be delivered without knowing that a child has been born; but in such a case the child and the placenta will probably be where they were delivered, in an unaltered condition, no means having been taken to separate the cord. Next, as we have seen when considering puerperal insanity, there may be a frenzy associated with the birth of a child, which may disturb the mental balance for a longer or a shorter period. Next there may be an ephemeral mania associated with the oncoming of the milk. In all these cases the murderous act may be done without premeditation, and with little or no recollection of what has happened. With puerperal insanity there is commonly a dislike to both husband and child; there being in one case a nervous irritability which prompts the mother to get rid of the crying child who disturbs her rest; or, on the other hand, she may not believe that the child is hers at all, or she may think its birth has alienated her husband's affection. With puerperal melancholia the mother may have some delusion, fancying that the child will be starved, or that it is already suffering from serious ailment; or she may kill it simply to send it direct out of this world into a happier state. With the weakness following lactation, or in cases in which rapid child-bearing has produced exhaustion, great weakness and melancholia may occur, in which the mother butchers her whole family, generally possessed by the idea that she is benefiting them and saving them from further misery.

The law rightly in this particular looks upon

the crime itself as sufficient evidence of the insanity; that a loving mother should destroy her offspring is unnatural and unreasonable, and ought not to be considered as an act for which she can be held responsible; and it would be well if the law would look more frequently at crimes as symptoms of insanity in other cases, rather than compel experts to discover collateral evidences of insanity, and then decline to accept such evidences because they have no definite connection with the act itself.

Infanticide, although generally a crime committed by the mother, may be perpetrated by the father also; and the case of Gouldstone, occurring in the year 1883, was an example of a man, who, being temperate, well-behaved, and industrious, but belonging to a slightly nervous stock, killed all his children in a fit of despondency, which was out of relationship to all surrounding circumstances, the crime depending on his neurotic constitution. In his case, in the end it was decided that he was of unsound mind, and that he should be reprieved and sent to Broadmoor.

One other point deserves notice and consideration here, and that is the question of *self-accusation*. When any serious crime is committed some person is sure to give himself up to justice, saying that he is the perpetrator of the crime. In many such cases the behaviour of the person is quiet and self-possessed, and the police are sufficiently convinced to take him in charge, and thus delay is caused, which may enable the real criminal to effect his escape. One of the most common conditions under which these self-accusations occur is drunkenness, and this, as a rule, is cleared up within twenty-four hours by the recantation of the person, or by the development of other alcoholic symptoms. In the other cases it will generally be

found that the person has been suffering from depression and sleeplessness, with extraordinary restlessness and tendency to wander in mind for some time before the self-accusation; in fact, that he has been, like so many other persons suffering from early insanity, looking for some interpretation of his misery, and on hearing of this crime he feels that he must in some way or other have been the cause of it. We see this condition in patients in asylums; thus, on the death of George Sand one patient was deeply concerned, as he maintained that it was by his action that she died; and when the Emperor of Russia was assassinated, several people were willing to accept the responsibility for the crime. It is possible even to meet with two persons supporting each other in one delusion (*folie à deux*); and in a police district in London I was told by the divisional surgeon that a whole family supported the insane statement of the father, being themselves weak-minded and influenced by his delusion. Hence extraordinary complications may arise from the occurrence not only of self-accusation, but of combination or agreement of persons of unsound mind upon the same delusion.

Besides the crimes to which I have referred, rape, unnatural offences, and the like, may occur in connection with insanity. The imbecile or idiot may have some sexual desire, which he may forcibly gratify. The offspring of nervous patients, of the moral imbecile or the senile dement, may be guilty of exposing their persons in public, or of criminally assaulting young children or old women, without being responsible for the act. Similar crimes are committed by the general paralytic in the earlier stage of excitement and in weak-mindedness, and by epileptics. Loss of control may be very well marked, and may result in some

brutal assault. Similar acts may occur in old persons, in whom lust reappears as an evidence of senile weakening. Attacks of the kind described may result from delusions. To sum up: unnatural or brutal offences of a sexual nature may result from undeveloped higher control; from loss of the same control; or from degeneration or disease, in which case they may follow simply from delusions. I have met with one case of a young single man given to masturbation who had complete sexual perversion, so that he lusted after men, not women.

Testamentary capacity.—It will be impossible for me under this heading to consider all the bearings of insanity upon the validity of wills, but there are certain points which I may be able to make clear in reference to mental conditions that distinctly prevent persons from performing legal acts. The law of England, in considering a will, is much more influenced by the will itself than by any statement or evidence as to the mental condition of the person making a will. If a will is distinctly the representation of the desires expressed by the individual during his sane life, it would be upheld, although the person could be proved to have become insane. Again, a will made by a lunatic during a period of sanity, if consistent, would probably be upheld; and it has been suggested that persons of unsound mind, even if suffering from general paralysis, and still under certificates, should be allowed to make a will during periods of sanity. The will, then, will be considered good or bad rather from its nature than from the conditions under which it was signed.

But certain wills are opposed, and the chief grounds for opposition are incapacity or undue influence. The incapacity may depend upon simple weak-mindedness, or upon any conditions

in which there is such unsoundness of mind as is likely to affect the will itself. No person with delirious ideas, such as one suffering from mania or from active melancholia, could make a will which might not be upset. But the more common condition of inability to will results from weak-mindedness. This is most commonly met with in cases where the patients are suffering from mental changes due to senility. Weak-mindedness may be congenital, or may be the result of an acute attack of insanity, or age; so that simple weak-mindedness, in which a person may be readily influenced to do wicked or unjust and foolish things, may occur from congenital weakness, or may follow acute mental disorder, or may result from age alone, or from mental depression occurring with age, or from apoplexy or similar brain disease.

Imbeciles need scarcely be considered further, but patients suffering from weak-mindedness due to other attacks of insanity merit a little further consideration. After an acute attack of insanity some patients are never themselves again; some never forgive their relatives for having sent them to an asylum; and I maintain emphatically that, in my experience, patients who are discontented after severe attacks of insanity are still to be considered of unsound mind, and likely to make wrong dispositions of their property in consequence of false ideas about their relations. Again, after some attacks of insanity, mental weak-mindedness may result, as shown by emotional instability; such patients often take to emotional forms of worship, and are easily moved to leave their property to some church or institution with which in their lives, while sane, they had little sympathy.

The weak-mindedness of age may be marked by similar emotional or intellectual feebleness; it is not uncommonly marked by querulous and

exacting conduct on the part of the patients towards those who have devoted years to their service, a forgetfulness of all past sacrifices, and an apparent loss of memory of old relationships and present duties. In senile weak-mindedness persons are easily influenced, and in such states wills or codicils may have been executed. If the memory can be proved to be very defective, so that it can be established that the executor did not remember the existence of his heirs-at-law, it is probable that a will leaving property away from them could be successfully contested. In senile weak-mindedness, too, it is not uncommon to meet with persons influenced by lower animal motives. Some old men suffer from sexual passion as a form of weakness, and they may be induced by it to do many weak or wicked things.

Probably weak-mindedness associated with apoplexy is the most common cause of contests about wills. I would begin by saying that although apoplexy is frequently associated with weak-mindedness, yet it is very common to meet with persons who have suffered from apoplexy and yet who are perfectly able to make a will. I have had on one or two occasions to examine persons who, having suffered from apoplexy, were going to make their wills, and being anxious that they should not give rise to litigation, took the trouble to have expert opinions as to their mental condition before signing their wills. After apoplexy aphasia is common, and I have seen several wills contested because the testator could not be understood by speech. Perfect testamentary capacity may exist with aphasia; but in some cases in which aphasia and amnæsia co-exist, the patient may be unable to understand the life relationships sufficiently to make a just will: or, he may not himself make the will, but may be too readily

influenced by anyone suggesting to him what the contents of the will should be. If, after apoplexy, memory is retained, if there is no special change in the emotional nature, and if there are no signs of change of character and disposition which would directly influence the opinion which the testator holds of his near relations, it is clear that the patient should be allowed to make a will.

Besides the above conditions, we must remember that epilepsy, by producing mental weakness, may incapacitate a person from making a will. Before an outbreak of insanity, although the patient may appear reasonable at the time, there may be a moral perversion causing him to dislike and suspect his relations, which may induce him to revoke his old will and make a new one; this is more common with those who have suffered from previous attacks of insanity, followed by former seclusions.

The most dangerous symptom, as far as will-making is concerned, is the general suspicion that people are in league against the testator. This symptom of suspicion may either cause the person to destroy all wills, or to make a will in favour of some stranger or of some charitable institution. The onset of melancholia may also be associated with the revocation or alteration of the will, so that a person who thinks that he has not made a good use of his life and property may leave his whole fortune away from his relations to some religious body To conclude: nearly everything depends upon the nature of the will itself; but wills may be shown to be unreasonable from the mental weakness of the testator, or because he was unduly influenced, and I have pointed out some of the various conditions in which mental weakness may occur, or in which influence may be exerted.

Lucid intervals.—In former days much stress was laid on the occurrence of these periods of sanity in upholding wills which were made by persons who were recognised as being insane. Such periods may occur under the following conditions: With the onset of acute mental disorder, suddenly the symptoms may pass off, only to recur in a more pronounced degree later; thus, though the first doctor called may be prepared to sign a certificate, the second may be unable to certify.

In persons suffering even from chronic insanity an attack of fever, or the occurrence of some local painful, inflammatory trouble, such as a whitlow or inflamed gum, may give rise to a more or less prolonged period of lucidity.

In cases of recurring insanity, suddenly all mental symptoms may pass off; this occurs, too, in *folie circulaire.*

In dementia præcox there may be periods of apparent lucidity, though generally this is of a modified kind, so that the sanity is of a reduced nature. In many cases of chronic insanity there may be at times sufficient lucidity to permit the performance of simple business transactions, and even to make a will. It is well to remember that, even in general paralysis of the insane, there may be during the first stages of the disease perfectly lucid times, during which the most complicated business may be transacted (*see* General Paralysis, p. 347).

Practical and social questions connected with insanity.—Under this head I shall consider, first, in what circumstances it is necessary that patients should be placed under certificates, then the circumstances which influence the selection of a place of treatment for the insane, whether the patient should be sent to an asylum, should be treated at home, or in the family of a stranger in

what is called "single care." There are many other important questions, such as the use of travelling and the continuing to follow the same trade or profession, and the more important social question of marriage.

When called to see a patient of unsound mind, one of the most important questions to decide is, whether a patient can be safely and satisfactorily treated without being under certificates. Generally relations will sacrifice a good deal rather than have their friends "made lunatics," as they express it. There is but one point to decide, and that is, whether it is necessary, in any way, forcibly to control the actions of the patient. If this is done he should be under certificates. If treated in his house, and if he is childish and not obstinate or wilful, he may be easily treated without certificates, but if of unsound mind and treated either in a stranger's house (whether with a relation, servant, friend, or doctor), he should in every case be under the legal restrictions of certificates. It will sometimes happen that doctors will decline to sign certificates of insanity, especially in the case of first attacks in young patients, such as attacks of hysterical and puerperal insanity. In such cases, the person who receives the patient into his house should obtain a certificate from the doctor or doctors who consider that the patient is not insane, to the effect that he is not insane, but requires control.

The next point is as to where the patient should be treated. First of all, I would say that the question of the liberty of the subject is, after all, one of means. A man with unlimited wealth need scarcely ever be sent to an asylum; but I think that, although he may be treated at home, it does not follow that that form of treatment is the best; and though wealth may

secure many things, it can neither buy health, nor necessarily alone obtain the best surroundings for a person of unsound mind. Persons of moderate means are those for whom one has generally to advise, and the advice may be arranged under the following heads: Travelling with a companion or doctor; treatment in a private home; treatment in an asylum or hospital of some kind.

Travelling is undoubtedly of great service in some cases; but I for one must protest emphatically against the fashion of sending patients, suffering from all kinds of nervous disorder, away from their homes on the chance of some of them deriving benefit. Travelling is useful in many young cases suffering from weakness, bodily or mental, especially in those suffering from morbid self-consciousness, and for those with hypochondriacal tendencies. The self-conscious girl who has spent five or six of her developing years in hard, monotonous book-learning is benefited by a course of fresh sense impressions, which travel and change supply. Going from England to the Continent, visiting Paris and the German cities, where art and music can be studied in comfort and without dissipation, to be succeeded by a sojourn in Switzerland or on the Mediterranean, will frequently establish for life a young nervous system which was tottering from over-strain. The overworked student who, after an easy life at school and college, has freshly awakened to the importance of real continuous hard work if he is to succeed in his profession; who, without the discipline for work, and regardless of the warnings given by indigestion and sleeplessness, often continues to work, stimulated by coffee and cold water, and neglects his old physical exercises, is liable to break down under some trifling moral or physical shock, and will run a great risk of becoming

insane unless removed from his old surroundings. Change and vigorous exercise, gradually increased in quantity and continued for several months, will often have the most beneficial results.

In adolescent insanity, with or without sexual vice, companionship and the active exercise of travelling are very beneficial. Many a young fellow who is developing unhealthy religious ideas loses his fear of the unpardonable sin after six months' knapsack work in England or on the Continent. I oppose the sending abroad of any cases in which there is a ground for suspecting general paralysis, or in which apoplexy was a cause of breakdown. A sea voyage is useful when the physical health of the patient precludes active exercise, and when there is no distinctly suicidal tendency, nor any tendency to sudden impulses to violence. Sea voyages are, therefore, useful in the milder forms of hypochondriasis, and in cases in which some lung trouble is threatening, and in others in which there has been dyspepsia, sleeplessness, and general loss of tone.

The time of year will determine the kind of travelling which must be advised, the sunshine of the South of Europe being useful during the winter and early spring, and the bracing mountain scenery being most useful in summer and autumn. For a long voyage, that to Australia probably provides the best change for such patients, but the Cape is more handy, and often affords sufficient change.

Travelling, then, is useful in milder cases of insanity; in cases threatened with nervous breakdown; and after recovery from an attack of insanity, or in cases where the attacks are in the habit of coming on periodically at a certain time each year, or each second or third year.

Next, as to *home treatment*. The first con-

sideration is, that the person of unsound mind has probably others about him who are nervously unstable; therefore he will not be treated in the most considerate way by them. Again, his influence may be disastrous to those about him. It is often my experience to find it perfectly impossible to treat an insane person in his own home, because of the thwarting action of his relations. And, on the other hand, I have seen cases in which an insane brother has started insanity, hitherto unknown in the family, which passed from member to member till three or four had become insane (see *folie à deux*, p. 544).

Home cure is only suitable for cases in which there is hope of speedy recovery, and where there are judicious friends and sufficient space. Insanity following fevers, insanity due to childbirth, may often be successfully treated at home. Care should be taken that the patient is, if possible, on the ground floor, so as to avoid accidents from precipitation; and, although he is at home, he must not be visited too much by near relations. In fact, the success of home treatment depends upon the quiet of home, with the absence of relations.

Next, as to the cases suited to *single care*. In the next chapter I shall point out the necessity of having certificates even for a single case where insanity is pronounced, and where there is any real restriction of liberty. It is often of the utmost importance to have young developing children belonging to highly nervous families removed from their homes, but yet placed under home-like treatment and discipline. Neurotic boys are specially likely to suffer from the surroundings of a mixed school; and I advise that such patients be kept in the house of a medical man who has had some experience of nervous disorders, at the same time that they attend school, or, at all events, are

taught with other children. Epileptic children, too, are better educated in private houses. They often require special education; and their epileptic fits are distressing, and may be injurious to other children. In the same way the unstable girl at puberty, and the hypochondriacal young man, may require skilled supervision for a year or two from seventeen or eighteen years of age, and this is best effected by private care. With large means any case can be treated in this way, the necessity being sufficient skilled attendance both by night and by day; cases of insanity due to drink or to acute physical disorder may be also satisfactorily treated.

My own opinion is that it is neither for the welfare nor for the comfort of chronic lunatics to be treated alone; and I believe that the present reaction in favour of sending patients to private houses rather than to private asylums will be the cause of scandals such as arose in former times from the keeping of lunatics in private houses. First, the chronic lunatic, if placed in a house by himself with two, three, or four private keepers, is in the position of a man controlled by his servants, and having no companionship or occupation; for it is absurd to suppose that a cultured man is happy when he is watched momentarily by inferiors, is forced to take his meals by or with them, and for amusement is expected to play games with his servants. Although it is somewhat an improvement when a young medical man is put in charge, yet the want of experience, and the natural desire for some freedom on the part of the doctor, does not insure the perfect comfort of the lunatic.

Many forms and degrees of weak-mindedness may be treated at home or in the home of a doctor; patients suffering from the more advanced

state of general paralysis may also be managed in single care; but in the case of a patient suffering from hallucinations and delusions it seems to me that he is happier and better off in a small private asylum or hospital than under private care. Whatever the statistics of cures may appear to show, I am quite sure that, other things being equal, more patients get well when associated than when in single charge; and although it may be said that private asylums are hot-beds of farming in lunacy, yet self-interest is at least as great in single care as when a dozen paying patients contribute to the income of the proprietor. Patients who, from their smallness of means, or from the nature of their symptoms, cannot be treated at home, may either be sent to one of the hospitals for the insane, or else to private asylums or the private department of county asylums (*see* Appendix C); or if means be entirely wanting, they may be sent to their county asylum.

About the most important social question that the practitioner will be asked is, whether a patient, if he recover, should be allowed to return to his former occupation. The advice given must depend upon the nature of the employment, the temperament of the man, and the nature of his insanity. If the man is an emotional, unstable person, and his business tends to throw him in the way of drink, gambling, or heavy speculation, he should be induced to follow rather the mechanical or clerical part of his business, and leave the active side to others. The morbidly self-conscious man had better give up sedentary occupations, and try his hand at farming or mechanical pursuits. It may happen that a change of occupation for a year or two at about eighteen years of age may enable the nervous student to return to the work necessary for him to enable him to follow the

profession of his choice. The most important indications should be drawn from the effect of the return to old surroundings, and if it is found that with each return to study or the office mental disorder reappears, it is evident that some change in life must be made. Business relationships are difficult to decide upon; but there are social ones of even greater difficulty, and when a question of marriage arises it is hard to satisfy either one's conscience or one's clients. On the one hand, I have known men and women who had suffered from attacks of insanity marry, and live for years without any return of the disorder; but the risk is great. On the other hand, I have known two insane people marry, and have seen their insane children, and I have seen an insane man marry while still nominally under control, and the results in this case also have been disastrous.

CHAPTER XXV.

LEGAL RELATIONSHIPS OF THE INSANE.*

Lord Chancellor, masters, visitors, and commissioners—Property of lunatics—Inquiry or commission in lunacy—Form of affidavit—Private patients—Ordinary petitions and urgency orders—Pauper and wandering lunatics—Ordinary medical and other certificates—Single patients.

In this chapter we have to summarise the **legal relationships of the insane.** On May 1st, 1890, the new Lunacy Act came into force. This Act consists of certain amendments which have been incorporated into the consolidated Lunacy Act, and by this the whole method of certifying private patients has been altered.

The *Lord Chancellor* is the official head and controller of all things connected with the insane. Directly under him are:

The Masters in Lunacy, who are in effect Judges in Lunacy, who try the sanity of such patients whose friends, on account of property or other business questions, demand an inquiry and appointment of guardians of the property and persons of the patients.

Visitors, who visit periodically the patients found lunatic after such inquiry; two of these visitors are physicians and one is a barrister. The

* *See* Lunacy Act, 1890 and 1891; Fry's "Lunacy Laws," Chambers (publisher, Knight and Co.); "Archbold's Lunacy" (Lushington), 4th edition (Shaw & Sons); Theobald and Schuster (Stevens and Co.); Pitt Lewis, Percy Smith and Hawke (J. and A. Churchill); "Lunacy Practice," Heywood and Massey (1905); "Lunacy Practice," William Gattie (Simpkin, Marshall and Co.).

above patients, called "Chancery lunatics," are, as a rule, the more wealthy patients.

The Commissioners in Lunacy, whose office is 66, Victoria Street, London, S.W., are also under the Lord Chancellor, and are the guardians of all insane patients, whether in public or private care, and are the visitors and inspectors of all certified patients; they have special powers and duties in the metropolitan area. There are legal and medical, besides honorary Commissioners. The Commissioners visit all asylums; they grant licences within the metropolitan area for private asylums and for private houses in which insane patients are treated; they receive (unopened) all letters of patients addressed to them; and they take notice of accidents or injuries of patients; and are kept informed of alterations in asylums and licensed houses, as well as of discharges of attendants and nurses for misconduct. The Commissioners receive copies of all certificates as to patients; and are not only the guardians but the registrars of all connected with insanity in England and Wales. They have the power of ordering prosecutions for non-observance of the regulations laid down by them.

In cases where the Commissioners have reason to think the property of a patient is not properly administered, they can apply to the Lord Chancellor for an inquiry. Though all insane patients are under the Lord Chancellor, yet there are several classes of such patients who have to be considered separately. There are patients maintained by their own means, or by charities; and also paupers who are provided for in part by the State and in part by the rates. Private patients may be Chancery cases, or may be detained by certificates in private houses, private or pauper asylums, or in registered hospitals. Unless a power of at-

torney has been given before the onset of insanity, no one has any right to undertake the business matters of a lunatic unless he has been appointed committee by the Lord Chancellor or his representative. The property of a patient found insane after an inquiry is administered by the committee of the estate. A judge in lunacy can, however, make an order for the administration of the property of anyone already under certificates, or proved to his satisfaction to be incapable of managing his affairs, though there has been no inquiry; and again, in cases where the whole property is under £200, the county court judge of the lunatic's district can make, at the request of the clerk of Guardians or relieving officer, an order for the administration of his affairs just as if he were dead, and the judge can order payment for his maintenance. When a patient is a pensioner of a public office, etc., a certificate by a justice of the peace or minister, and a medical certificate that he is unable to manage his affairs, will authorise the department to pay for his support in the institution where he is.

Concerning an inquisition, inquiry, or commission in lunacy.—This should only be applied for when the insanity is clearly marked, and is chronic and not likely to be recovered from, or when business matters affecting other people are of grave and immediate importance.

The process is, as a rule, costly, and can only be set aside by an inquiry similar to that which established it; this inverse process is called a "supersedeas." The process for dealing with small estates—*i.e.* of estates under £2,000, or £100 a year income—is similar, but more rapid. By recent legislation a person may be permitted (after the inquiry) personal liberty, though prevented from dealing with his property.

In proceeding for an inquisition the steps are as follows: The husband or wife, the next of kin, the heir, or some responsible relation or friend, instructs a solicitor, who obtains two medical affidavits, and appends these to the request to the Lord Chancellor for an inquisition. (The Commissioners in Lunacy may apply for the inquisition.) The medical affidavits are unlike the ordinary medical certificates, and may include facts indicating insanity known to the medical man which have occurred within two years; these affidavits should set forth the name, general medical qualifications, and any special qualifications indicating experience in insanity; then, in separate and numbered paragraphs, statements of facts indicating the progress and the form of insanity; and lastly, the conclusion arrived at as to the inability of the patient to take care of himself or his property. Thus:

I, A B., Doctor of Medicine (London), formerly assistant at Asylum, having the Medico-Psychological Association's certificate of knowledge of lunacy, having been medical attendant on C. D. for two years, am of the opinion that he is of unsound mind. I form this opinion from the following facts:

1. He had an attack of melancholia and attempted suicide eighteen months ago.

2. Since then he has had repeated outbreaks of homicidal violence.

3. For six months his memory has failed, so that he does not know his wife.

4. He is now childish in mind, neglects the ordinary calls of nature.

In my opinion he is suffering from chronic insanity and will not recover, and is quite unfit to take care of himself or his property.

As far as the medical man is concerned, this is all that is necessary; but he must remember a few facts, the most important being that though an inquiry is partly medical, it is largely legal;

the patient is served with a notice of the inquiry, and may elect to be defended by counsel; he may demand a special jury, and he may himself appear at the trial. Every medical man should either keep a copy of his affidavit, or ask for one before he appears to give evidence and be cross-examined.

The inquiry is held before a Master in Lunacy, or occasionally a Judge of the Supreme Court. After the inquiry the Master gives his verdict, which may be that the person is of unsound mind and incapable of managing his affairs, or he may decide that he is incapable of managing his affairs but need not be detained or restrained personally. A patient found insane by inquisition has two persons appointed to look after himself and his affairs, viz. the committee of the person and the committee of the estate. The former has the authority, with the consent of the court, for which application has to be made at the Lord Chancellor's (Lunacy) office, Law Courts, Strand, W.C., of moving the patient from asylum to asylum, or from home to home.

All such patients are regularly visited by the Lord Chancellor's visitors. If the property of the patient be under £2,000, or £100 yearly income, the Judge in Lunacy, on being satisfied by the certificate of a Master, by the report of the Commissioners, or by affidavit, may treat it as if an inquiry had been held. In such cases the solicitor presents the petition, with affidavits as to amount of the property and two medical affidavits, and the process is more rapid and less costly than under the ordinary circumstances. In any case, if the patient recover, he may present a petition to the Judge in Lunacy through a solicitor, the petition being accompanied by two medical affidavits as to recovery, preferably signed by the medical men

who signed the other or restraining affidavits. Such proceedings are, as a rule, unopposed and rapid, and not costly; but medical men should not be hasty in signing such affidavits, as the apparent recovery may be only a remission.

If during the inquiry the Judge is of the opinion that the insanity is only temporary, he may order money from the estate of the patient to be paid for maintenance of family and for other objects. Chancery patients do not void the effects of the inquiry by escape from care or by leaving the kingdom.

Besides Chancery patients there is a large number of **private patients,** either with no property of their own, or who are suffering from temporary mental illness, not requiring that any arrangement be made for the permanent care of their property; such patients, if but slightly affected, may be treated in the houses of doctors, or of others who have provision for the same, as *single patients*: but it must be fully understood that it is illegal for anyone to receive into his house for payment, direct or indirect, anyone who is of unsound mind and who needs watching or control (*see* p. 559). Some patients having symptoms of mental disorder may be sensible enough to place themselves under care and control, and are free to do this (*see* Voluntary boarders, p. 563). With the consent of the Commissioners in Lunacy, more than one patient can be received into a private or unlicensed house.

Besides private houses, there are licensed houses into which more than one person of unsound mind can be admitted, the licence being for a definite number only. There are private asylums, but these, since the passing of the Act of 1890, cannot be enlarged, nor can the number of patients for which they are licensed be in-

creased. There are also registered lunatic hospitals, in which patients are received at various rates of payment, in some cases gratuitously, the idea being that the hospital should be a self-supporting charity, certain patients paying more than their actual cost, and thus allowing others to be received at less than their cost. Into both private asylums and hospitals voluntary boarders can be received.

All private patients, not being Chancery cases, require two medical certificates for their detention.

Procedure for detention of persons of unsound mind.—In Appendix A will be found the medical and other forms for certificates required for the reception and detention of persons of unsound mind.

The method of procedure, in the case of private patients, is as follows: Either by *ordinary petition* and two medical certificates, or by *urgency order.* In the latter, only the order, statement, and one medical certificate are necessary, and within a very few hours a patient may thus be certified and placed under care.

In the former case a near relative, if possible, must fill up and sign a petition (Form 1, p. 566, and marginal notes), as well as the statement of particulars (Form 2, p. 567). Two medical certificates must be provided (Form 8, p. 570); one of these should be signed by the ordinary medical attendant of the patient, "whenever practicable." These four papers must be submitted to a so-called judicial authority, *i.e.* to one of the justices specially appointed for the purpose,* a county court judge, or a stipendiary magistrate, who has the power of at once signing

* For such magistrates, see Sutherland's "Directory of Justices in Lunacy." Ball and Sons.

(Form 3, p. 568) the order for the reception of the patient. On the other hand, the judicial authority may call and examine witnesses, and may himself examine the patient. All matters appertaining to such examination are private.

The judicial authority may postpone signing an order, or he may dismiss the petition.

Persons signing medical certificates will not be liable to any civil or criminal proceedings if they act in good faith and with reasonable care.

The marginal notes on Forms 1, 2, 3, give all necessary instructions.

Urgency orders for the reception of private patients (Form 4, p. 571) consist of an order and statement signed by a relative, where possible, and of one medical certificate (Form 8, p. 573), to which is added a statement by the medical man of the reasons for the urgency. Such orders may be signed for convenience, when a patient is violent, dangerous, suicidal, or insanely suspicious; in many cases it is much more convenient, and the process can be carried out with less distress to the family than by the ordinary petition to the local magistrate. An urgency order is in force (*i.e.* can be used to detain a patient) for seven days from its date; it may be concurrent with an ordinary petition; in this case it remains in force until the petition is disposed of. The practitioner must have personally examined the patient not more than two clear days before his reception. An urgency order is sufficient authority to take, convey, and hold a person of unsound mind.

If a patient be received on an urgency order, within *seven days* a fresh petition and statement, addressed to a judicial authority, has to be provided by the same or another petitioner, besides two medical certificates, one of which may be similar to and by the same doctor who signed the

urgency certificate, and as the result of the same interview if made and signed within three days of the interview.

The petition is presented to a magistrate having jurisdiction in the district in which is the asylum or house in which the patient is. It may be difficult to get a magistrate, and it may be found that the urgency certificate may expire before a full petition is presented; in that case a second urgency order may be obtained.

Persons of unsound mind, and not under proper care and control, or cruelly treated or neglected, may, by order of the judicial authority, be visited by two medical men, who may sign certificates, and the magistrate may then direct that the patient be taken to the asylum into which, if a pauper, he could be received. This is called a "summary reception order."

By this means patients are taken to some of the pauper asylums in which private patients are taken.

As to *pauper lunatics*. Every medical officer of a union who has knowledge that a pauper resident in his district is a lunatic needing care shall, within three days, give notice in writing to the relieving officer or to the overseer. Every such officer shall, within three days of receiving such notice, or of otherwise having such knowledge, give notice thereof to a justice having jurisdiction, who shall, within three days, appoint a time and place for seeing the alleged lunatic.

Every constable, relieving officer, or overseer, who has knowledge of any person (pauper or not) who is a *wandering* lunatic, shall immediately apprehend the alleged lunatic and take him before a justice; or the justice, being informed that there is such a wandering lunatic, may issue an order to constable, relieving officer, or overseer to apprehend him.

He shall direct the medical officer to examine him, and if he certify that he is insane, and satisfies the justice to that effect, the justice shall order his detention.

A justice may make a summary reception order, which will have the effect of detaining the alleged lunatic, but its powers may be suspended to allow arrangements to be made; thus a wandering patient may be referred to the workhouse for fourteen days while the friends are being found, or while they are preparing for his further care. If a constable, relieving officer, or overseer is satisfied that it is necessary for the public welfare that a lunatic should be detained pending proceedings, he may remand him to the workhouse, and the master must receive, relieve, and detain him for not more than three days, unless a special order for the detention of the lunatic in the workhouse be made, and this will last for fourteen days. The friends of the lunatic may, with the consent of the justice, make other provision for his care.

Medical certificates must be signed by qualified and registered medical men, and must contain facts observed by themselves. They must examine the patient separately from any other medical man within seven clear days of presentation of the petition, and within seven clear days of the date of the order in other cases: the certificates must be on separate sheets of paper. Medical men may not sign the certificates if they have signed the petition for reception or the urgency order, or if they are related to the petitioner, or if they are related or in any way connected with one another, or to the person who is to receive the patient. One of the medical men should, when practicable, be the regular medical attendant of the patient. A medical man acting as visitor to a house or asylum where patients are received may

not certify for the reception of patients into that house.

A reception order by a judicial authority or an urgency order is sufficient authority for the petitioner or any person authorised by him (such as an attendant) to take the lunatic and convey him to the place mentioned in the order.

While a petition is being prepared, symptoms may rapidly develop, and either an urgency order may be made use of, or a summary order for the detention of the patient in the workhouse may be obtained, the original petition still being valid for fourteen days after the signature of the reception order.

Reception orders, like medical certificates, are as a rule only of value for seven days.

Single patients.—It must be fully understood that no one has a right to control a person of unsound mind, even though a relative, and the Commissioners may require regular medical visitation of such a patient, though in a private house or charitable institution.

It is illegal to detain and control any person of unsound mind for payment, direct or indirect, unless there are proper *order, statement, and medical certificates*, even though the patient be under twenty-one years of age.

Any person receiving one insane patient into his house only, does not require a licence, and by section 46, with the consent of the Commissioners, more than one patient may be received if it is for the interest of the patient already under control that another or others should be in the same house. A doctor (or other proper person) may receive one patient of unsound mind into his house under magistrate's order, accompanied by statement and two medical certificates, which must be in every way complete and within the

legal times specified on the certificates. Any corrections in the order or certificates may be made within fourteen days after reception, with the consent of the persons signing the order or of the Commissioners. Within one clear day of reception copies of all the admission papers must be sent to the Commissioners with notice of admission (Form 9, p. 574). Where the judicial authority who made the reception order has not seen the patient before making the order, the patient must be served within twenty-four hours of admission with notices in Forms 6 and 7 (p. 577), unless within the same period a certificate in Form 5 (p. 577) has been signed by the medical attendant and forwarded to the Commissioners. After the second and before the seventh day, a medical statement as to the mental and bodily state of the patient must also be sent (Form 10, p. 575). At the end of a month the medical visitor (*i.e.* a medical man who regularly visits the patient and makes entry in medical journal) must send a report to the Commissioners (Form 13, p. 578); entries must be made, signed, and dated at each visit, such entries being fortnightly, unless with the consent of Commissioners the visits are less frequent (p. 578).

Special *medical case forms* are indicated in the schedules of the Act, and records of all medicines given, of all methods of restraint, with its duration, of all injuries, and how inflicted, and of attempts at suicide or escape must be entered (*see* Schedules of the Lunacy Act, 1890)

The medical visitor, or medical man in charge, must make a special report each year, within seven days of January 10, as to the patient's mental and bodily health. A reception order expires at the expiration of one year from its date, unless a certificate signed by the medical attendant is sent to

the Commissioners at certain periods (*see* Lunacy Act, 1890, sec. 38).

Chancery patients are received (in single care or into asylums) by order of the committee of the person, signed on an office copy from the Lord Chancellor's office.

Patients who are in single care can be transferred to other private houses, or to private asylums, or hospitals (but not to county or borough asylums), on an order of transfer granted by the Commissioners in Lunacy, on application by the person who originally signed the petition. If it is desired to send a single patient away on trial, permission must be applied for to the Commissioners for leave of absence for a definite time, to a definite place in the United Kingdom. Private patients in single care are visited periodically by one or more of the Commissioners in Lunacy, who in licensed houses leave a written report of their visit; a copy of this report must, within three days, be sent to the Commissioners' office, and where the house is licensed by the justices, also to the clerk of the visitors.

If a patient in single care dies, notice must be sent within forty-eight hours to the coroner, the Commissioners in Lunacy, the Registrar of Deaths, and the relative named on the statement of particulars, by the medical attendant, and the fact of death must be recorded in the medical journal.

Within three clear days of the removal, discharge, escape, re-capture, or death of a person of unsound mind, written notice thereof must be sent to the Commissioners, and in the case of a Chancery lunatic, to the Chancery visitors (pp. 575, 576).

CHAPTER XXVI.

SUMMARY OF PROVISIONS OF LUNACY ACT, WITH GENERAL INSTRUCTIONS.

Mechanical restraint—Letters of lunatics—Private patients—Voluntary boarders—Criminal lunatics—Independent examination of a patient—Leave of absence—Penalties.

The Commissioners grant licences in the Metropolitan area, whereas the Justices for County and Quarter Sessions boroughs license in other districts.

Mechanical restraint is only to be used for urgent surgical or medical reasons, or to prevent a patient from injuring himself or others, and must be fully recorded.

All letters of lunatics must be sent unopened if addressed to the Lord Chancellor, any judge in lunacy, a Secretary of State, or to the Commissioners, or to the person signing either the order or the petition to the Chancery visitors, or visitors (of a licensed house), or members of a visiting committee; but the person having charge of the patient may send or not other letters, but should initial and preserve them.

Private patients must be informed by printed notice of their rights as to correspondence and interviews with Commissioners or visitors.

A doctor who signed a certificate for the detention of a patient may not also act as medical visitor to him.

A Commissioner or visitor may give an order for a patient to be visited by friends or medical men.

Male attendants may not be employed to control female patients. If any person detained as a lunatic escape into Scotland or Ireland, the Commissioners may authorise anyone to apply to a justice where the patient is, for a warrant to retake the patient. Such warrant shall only hold for the time within which the patient might be retaken in England, viz. fourteen days.

Many points as to inquiries, and the administration of the affairs of Chancery patients, are included in the Lunacy Act, to which reference must be made ("Lunacy Acts." Shaw & Sons, Fetter Lane).

Visitation of private patients. — Every licensed house within their immediate jurisdiction is visited six times a year by Commissioners; every licensed house without the jurisdiction is so visited twice, but must also be visited by the visitors of the justices in all six times yearly. Every patient and every part of the house must be open for inspection. At least once a year every single patient, under certificate, must be visited by one or more of the Commissioners.

No fresh licences for private asylums will be granted, but renewal of licences and transfer of the same will be allowed.

No fresh house will be licensed before inspection by the Commissioners, and the licensee must reside in the house.

Many public asylums now receive patients paying sums of fifteen shillings to two guineas a week.

Voluntary boarders may be received into licensed houses and hospitals; into the former with the previous consent in writing of two of the Commissioners, or when licensed by Justices, of two of the Justices, such boarders to be received for a specified time only; into hospitals, boarders

can be admitted without any such written consent. The boarder himself, if wishing to go to a licensed house, must apply for permission. A boarder can leave on giving twenty-four hours' written notice.

In my opinion, anyone may place himself in an asylum as a voluntary boarder if he recognises that he is suffering from mental disorder, and requires care and control, even though he has distinctly insane ideas. In recurrent cases, also, patients may recognise the necessity for treatment. Boarders may be certified while still boarders, but it is much better that this should be done outside the licensed house if possible, so as to avoid any appearance of entrapping a patient, and then certifying him.

Though this Act does not completely protect medical men, yet as no petition becomes of use till a magistrate has given the order, this is some defence; and further protection is secured by the following section:—"A person who, either before or after the passing of the Act, signed or carried out an order or a medical certificate that a person is of unsound mind, or presents a petition after the passing of the Act, or does anything in pursuance of this Act, shall not be liable to any civil or criminal proceedings, if such person has acted in good faith and with reasonable care."

"If any proceedings should be taken, they can be stayed by a summary application to the High Court of Justice."

Any wilful or careless breach of the Act may be treated as a misdemeanour, and fines of varying amount may be enforced.

Criminal lunatics consist of several classes. First of all, those who were proved to have been insane at the time the criminal act was perpetrated; second, those who at the time of the trial have been found to be too insane to plead,

and have been treated as the first class; third, the criminals who, while undergoing their punishment, have become insane: this last is by far the most dangerous class.

All criminal lunatics are now placed in the State Asylum, Broadmoor, Berks.

Independent examination of a patient already in an asylum.—Any relative or friend may apply to the Commissioners for an order to send two independent medical men to examine a patient already in an asylum; but the applicant must satisfy the Commissioners of the reasonableness of the application. And if two medical men, having made two independent visits, at least seven days apart, certify that the patient may be safely discharged, the Commissioners may order his discharge at the end of ten days.

Leave of absence may be obtained in the case of a private patient by applying to the Commissioners in Lunacy, stating the length of time required and the place to which it is intended to send the patient. Such leave of absence can be extended by application.

Penalties.—1. Any person making default in sending to the Commissioners or any other person any report or other document required under this or any other Lunacy Act, or in complying with these Acts, shall for each day be liable to a penalty not exceeding £10; but the penalties may be remitted if the Court is satisfied that the default arose from mere accident or oversight.

2. Any one obstructing a commissioner or visitor in the exercise of his powers shall be liable to a penalty not exceeding £50, and also be guilty of a misdemeanour.

APPENDIX A.

STATUTORY FORMS RELATING TO THE CERTIFICATION AND DETENTION OF PATIENTS.

N.B.—In all circumstances, if possible, the PETITION *and* STATEMENT *below to be filled up by the Patient's Relatives. If no Relatives, by the nearest Friend.*

PETITION FOR AN ORDER FOR RECEPTION OF A PRIVATE PATIENT.

53 *Vict. Ch.* 5, *Schedule* 2, *Form* 1.

Name of ient in .

In the matter of (A).....
a person alleged to be of unsound mind.

To His Honour the Judge of the County Court of.....
or To.....Stipendiary Magistrate for.....
or To.....a Justice of the Peace for.....

Name of tioner in .

The Petition of (B).....of (1).....
in the county of.....

1.—I am (2).....years of age.

ull postal ress and k, profes-, or occu-ion. t least nty-one. Some day ium 14 s before date of presenta- of the ition.

2.—I desire to obtain an Order for the reception of (*name of patient in full*) ....., as a lunatic, *or* an idiot, *or* a person of unsound mind, in.....

3.—I last saw the said (*name of patient in full*).....
.....at.....on the (3).....day of
.....190...

4.—I am the (4).....of the said (*name of patient in full*).....

lere state connec- or rela- shipwith patient.

If the petitioner is not connected with or related to the patient, state as follows:—

I am not related to or connected with the said (*name of patient in full*).....

The reasons why this Petition is not presented by a relation or connection are as follows: .....
.....
.....

The circumstances under which this Petition is presented by me are as follows: .....
.....

5.—I am not related to or connected with either of the persons signing the Certificates which accompany this Petition as (*where the petitioner is a man*) husband, father, father-in-law, son, son-in-law, brother, brother-in-law, partner, or assistant;
(*or where the petitioner is a woman*) wife, mother, mother-in-law, daughter, daughter-in-law, sister, sister-in-law, partner, or assistant.

6.—I undertake to visit the said (*name of patient in full*) .....personally, or by some one specially appointed by me, at least once in every six months while under care and treatment under the Order to be made on this Petition.

7.—A Statement of Particulars relating to the said (*name of patient in full*).....,accompanies this Petition.

If it is the fact, add:

8.—The said (*name of patient in full*)..... has been received in.....under an Urgency Order, dated the (5).....

(5) Here insert date of Urgency Order, if any

The Petitioner therefore prays that an Order may be made in accordance with the foregoing statement.

Full Christian and surname of petitioner.....

Date of presentation.....

[Form 2.]

STATEMENT OF PARTICULARS.

Statement of Particulars referred to in the annexed Petition.

The following is a statement of particulars relating to the said (*name of patient in full*).....

N.B.—If any particulars are not known, the fact is to be so stated.

Name of patient, with Christian name at length . . . . . .
Sex and age . . . . . .
Married, single, or widowed . . . .
Rank, profession, or previous occupation (if any) . . . . . .

Religious persuasion . . . .
Residence at or immediately previous to date hereof . . . .
Whether first attack . . . .
Age on first attack . . . .
WHEN and WHERE previously under care and treatment as a lunatic, idiot, or person of unsound mind . . ..
Duration of existing attack . . . .
Supposed cause . . . .
Whether subject to epilepsy . . . .
Whether suicidal . . . .
Whether dangerous to others, and in what way . . . .
Whether any near relative has been afflicted with insanity . . . .
Names, Christian names, and full postal addresses, of one or more relatives of the patient . . . .
Name of the person to whom notice of death to be sent, and full postal address if not already given . . ..
Name and full postal address of the usual medical attendant of the patient .....

When the petitioner or person signing an Urgency Order is not the Person who signs the Statement, add the following particulars concerning the person who signs the Statement.

Name, with Christian name at length.....
Rank, profession, or occupation (if any).....
How related to or otherwise connected with the patient .....

N.B.—If neither of the practitioners signing the Medical Certificates be the usual medical attendant of the patient, the reason of this must be stated in writing to the Judge, Magistrate, or Justice, by the petitioner.

[Form 3.]

N.B.—The patient must be received into the asylum before the expiration of seven clear days from the date of the Judge's, Magistrate's, or Justice's Order.

Order for Reception of a Private Patient, to be made by the Judge of County Courts, Stipendiary Magistrate, or Justice appointed under the Lunacy Act, 1890.

I, the undersigned (*name*) .....
being the Judge of the County Court of..... .....
or the Stipendiary Magistrate for ....
or a Justice for.....specially appointed under the Lunacy Act, 1890, upon the petition of (*name of petitioner*) .. ..of (*address and description*).....
in the matter of (*name of patient*) .....
a lunatic, *or* an idiot, *or* a person of unsound mind, accompanied by the Medical Certificates of (A).....
and (A) ..... hereto annexed, and upon the undertaking of the said (*name of petitioner*)..... ..... to visit the said (*name of patient*) .... personally or by some one specially appointed by the said (*name of petitioner*) ....once at least in every six months while under care and treatment under this order, hereby authorise you to receive the said (*name of patient*) .... as a patient into your hospital. And I declare that I have [*or* have not] personally seen the said (*name of patient*)..... ..... before making this order.

(A) Names of Medical Practitioner signing Certificates.

Dated.....

Signed.....*Judge of the County Court of*

.. ..or *Stipendiary Magistrate,*

....or *a Justice for appointed under the said Act.*

N.B.—Medical Certificates of patient's examination, and the signatures, are required by the above Statute to be dated not more than seven clear days previously to the date of the presentation of the petition.

Medical Practitioners signing the Certificates must not be in partnership, nor one the assistant of the other; nor must they be related to one another, as father, father-in-law, mother, mother-in-law, son, son-in-law, daughter, daughter-in-law, brother, brother-in-law, sister, sister-in-law, partner, or assistant; nor must they themselves sign the petition or urgency order, nor must they be related to the petitioner in any of the ways specified in the petition.

One of the Certificates shall, whenever practicable, be under the hand of the usual medical attendant, if any (being a medical practitioner), of the alleged lunatic. They must use the terms specified in the Statute. (See marginal notes.)

BY ORDER OF THE COMMISSIONERS IN LUNACY.

1.—It is absolutely necessary that the medical men should write their Certificates legibly, so as to afford the opportunity of an exact copy being made.

2.—"All alterations in the original Certificates, *unless by the certifying medical men*, invalidate them; and *the initials of the latter* must be placed to every change or addition made."

CERTIFICATE OF MEDICAL PRACTITIONER.

SCHEDULE 2. FORM 8.

In the matter of (*name of patient*).....
of (1)..... .....in the.....(2) of.....
(3).....an alleged lunatic.

I, the undersigned (*name of practitioner*).....
do hereby certify as follows :—

1. I am a person registered under the Medical Act, 1858, and I am in the actual practice of the medical profession.

2. On the.....day of.....190.....at (4).....
.....in the (5).....of..... ...
separately from any other practitioner, I personally examined the said (*name of patient*).....and came to the conclusion that he is a person of unsound mind, and a proper person to be taken charge of and detained under care and treatment.

3. I formed this conclusion on the following grounds, viz. :—

(*a*) Facts indicating insanity observed by myself at the time of examination (6), viz. :—
.....
.....
.....

(*b*) Facts communicated by others, viz. : (7) *State the name in full of the person giving the information, with the address and description* .....
.....
.....

4. The said (*name of patient*).....
appeared to me to be (*or* not to be) in a fit condition of bodily health to be removed to.....

5. I give this Certificate, having first read the section of the Act of Parliament printed below.

Dated.. .....190.., **Signed**,.....
Full postal address.....
.....

Insert reference of patient.
County,' y, or rough, as case may

Insert profession or occupation (if any).

Insert place of examination, stating the name of the street, with number or name of the house, or if there is no number, the Christian and name of surnamed.
County, y, or rough, as case may

If the name or other facts were observed previous to the time of examination, the certifier is at liberty to subjoin them in a separate paragraph. The names and Christian names (if known) of inhabitants to be given, with their addresses and descriptions.

Extract from Section 317 *of the Lunacy Act*, 1890.

"Any person who makes a wilful misstatement of any material fact in any Medical or other Certificate, or in any Statement or Report of bodily or mental condition under this Act, shall be guilty of a misdemeanour."

N.B.—By Section 28, "*Every Medical Certificate made under and for the purposes of this Act shall be evidence of the facts therein appearing and of the judgment therein stated to have been formed by the certifying medical practitioners on such facts as if the matters therein appearing had been verified on oath.*"

In the case of private patients and patients not under proper care and control, etc., two Medical Certificates are required.

URGENCY ORDER.

FORM OF URGENCY ORDER FOR THE RECEPTION OF A PRIVATE PATIENT INTO.....

53 *Vict., Ch.* 5. (*Second Schedule, Form* 4.)

I, the undersigned, being a person twenty-one years of age, hereby authorise you to receive as a patient into.....
..... (*name of patient in full*) .....
as a lunatic, *or* an idiot, *or* a person of unsound mind, whom I last saw at (*state where patient was last seen*).....
....on the (1)..... (1) Some day within two days before the date of the order.
day of .....190...I am not related to, or connected with, the person signing the Certificate, which accompanies this Order, in any of the ways mentioned in the margin (2).

(2) Husband, wife, father, father-in-law, mother, mother-in-law, son, son-in-law, daughter, daughter-in-law, brother, brother-in-law, sister, sister-in-law partner, or assistant.

Subjoined hereto is a Statement of Particulars relating to the said (*name of patient*) .....

Signed,

(*name and Christian name at length*).....
Rank, profession, or occupation .....
Full postal address.....
How related to, or connected with, the patient .....

If not the husband or wife, or a relative of the patient, the person signing to state as briefly as possible—

1. Why the order is not signed by the husband or wife, or a relative of the patient
.....
.....

2. His or her connection with the patient, and the circumstances under which he or she signs
.....
.....

Dated this.....day of.....190...

TO THE

N.B.—An Urgency Order remains in force for 7 days from its date, but the patient must have been personally examined by the medical practitioner signing the accompanying Certificate, not more than two clear days previously to the reception of the patient.

STATEMENT OF PARTICULARS.

Statement of Particulars referred to in the annexed Urgency Order.

The following is a Statement of Particulars relating to the said (*name of patient in full*) .....

N.B.—If any particulars are not known, the fact to be so stated.

Name of patient, with Christian name at length	.....
Sex and age	.....
Married, single, or widowed	.....
Rank, profession, or previous occupation (if any)	.....
Religious persuasion	.....
Residence at or immediately previous to the date hereof	.....
Whether first attack	.....
Age on first attack	.....
WHEN and WHERE previously under care and treatment as a lunatic, idiot, or person of unsound mind	.....
Duration of existing attack	.....
Supposed cause	.....
Whether subject to epilepsy	.....
Whether suicidal	.....
Whether dangerous to others, and in what way	.....
Whether any near relative has been afflicted with insanity	.....
Names, Christian names, and full postal addresses of one or more relatives of the patient	.....
Names of the person to whom notice of death to be sent, and full postal address if not already given	.....
Name and full postal address of the usual medical attendant of the patient	.....

Signed,.....

When the petitioner or person signing an Urgency Order is not the person who signs the Statement, add the following particulars concerning the person who signs the Statement.

Name, with Christian name at length.....
Rank, profession, or occupation (if any) .....
How related to or otherwise connected with the patient .....

URGENCY CERTIFICATE.

N.B.—A Medical Certificate of the examination of a patient accompanying an Urgency Order is required by the above Statute, to be dated not more than two clear days previously to the reception of the patient.

The Certifying Medical Practitioner must not be related to the person signing the Urgency Order, as husband, wife, father, father-in-law, mother, mother-in-law, son, son-in-law, daughter, daughter-in-law, brother, brother-in-law, sister, sister-in-law, partner, or assistant.

He must use the terms specified in the Statute (see marginal notes).

BY ORDER OF THE COMMISSIONERS IN LUNACY.

1.—It is absolutely necessary that the medical men should write their certificates legibly, so as to afford the opportunity of an exact copy being made.

2.—"All alterations in the original certificates, *unless by the certifying medical men*, invalidate them; and *the initials of the latter* must be placed to every change or addition made."

CERTIFICATE OF MEDICAL PRACTITIONER.

(*Schedule 2. Forms 8 and 9.*)

In the matter of (*name of patient*).....
of (1).....in the (2).....of.....
(3).....an alleged lunatic.

I, the undersigned (*name of practitioner*) .....
do hereby certify as follows:—

1. I am a person registered under the Medical Act, 1858, and I am in the actual practice of the Medical Profession.

2. On the.....day of.....190...at (4).....
..... in the (5) .....of.....
I personally examined the said (*name of patient*).....
and came to the conclusion that he is a lunatic, *or* an idiot, *or* a person of unsound mind, and a proper person to be taken charge of, and detained under care and treatment.

(1) Insert residence of patient.
(2) County, city, or borough, as the case may be.
(3) Insert profession or occupation, if any.
(4) Insert the place of examination, giving the name of the street, with number or name of the house, or should there be no number, the Christian and surname of the occupier.
(5) County, city, or borough.

3. I formed this conclusion on the following grounds, viz. :—

(*a*) Facts indicating insanity observed by myself at the time of examination, (6) viz. :—

.....

.....

.....

(*b*) Facts communicated by others, viz. :—(7) *State the name in full of the person giving the information, with address and description* .....

(8) I certify that it is expedient for the welfare of the said (*name of patient*).....[*or* for the public safety], that the said (*name of patient*)..... should be forthwith placed under care and treatment.

My reasons for this conclusion are as follows : .....

4. The said (*name of patient*) ..... appeared to me to be (*or* not to be) in a fit condition of bodily health to be removed to.....

5. I give this Certificate, having first read the Section of the Act of Parliament printed below.

Dated.....190... **Signed**.....

Full postal address.....

Extract from Section 317 *of the Lunacy Act*, 1890.

"Any person who makes a wilful misstatement of any material fact in any Medical or other Certificate, or in any statement or report of bodily or mental condition under this Act, shall be guilty of misdemeanour."

N.B.—*By Section* 28, "*Every Medical Certificate made under and for the purposes of this Act shall be evidence of the facts therein appearing, and of the judgment therein stated to have been formed by the Certifying Medical Practitioners on such facts, as if the matters therein appearing had been verified on oath.*"

NOTICE OF ADMISSION.—Rules of Commissioners.

(*Form* 9.)

Date of Reception Order, the.....day of.....190...

I hereby give you notice that A. B. was admitted into this asylum as a private patient [*or* into the house of ..... situate.....as a single patient] on the.....day of....., and I hereby transmit (a copy of the urgency order and medical certificate or) a copy of the Reception Order and the Medical Certificates, and of the

Petition and Statement of Particulars on which he was received.

A statement with respect to the mental and bodily condition of the above-named patient will be forwarded in due course (or as the case may be).

Subjoined is a statement with respect to the bodily and mental condition of the patient.

Signed (*by person having charge of the single patient*).

Dated.....

To the Commissioners in Lunacy.

MEDICAL STATEMENT.—(*Same Rules, Form* 10.)

I have this day (some day not less than two and not more than seven clear days after the admission of the patient) seen and examined ....the patient mentioned in the Notice of Admission dated the.....day of..... and hereby certify that with respect to mental state he (*describing it*) and with respect to bodily health and condition he (*describing it*).

Signed (*Medical Officer*).

To the Commissioners.

REPORT AS TO PRIVATE PATIENT.—(*Ditto, Form* 13.)

To be sent at expiration of one month after reception.

I have this day seen and examined.....received here on the.....day of.....190..., and report that with respect to mental condition he is ..... and that with respect to bodily condition he is.....

Dated.....

Signed (*Medical Officer or Attendant*).

To Commissioners.

NOTICE OF REMOVAL.—(*Ditto, Form* 14.)

Date of Reception Order, the.....day of.....190...

I hereby give you notice that.....a private patient received into this house on the..... day of ..... was on the.....day of.....removed to..... ..... relieved (*or* not improved), by the authority of.....

Signed (*by person having charge of the patient*).

To Commissioners.

NOTICE OF DISCHARGE.—(*Ditto, Form* 15.)

Date of Reception Order, the.....day of.....190...

I hereby give you notice that.....a private patient received into this house on the.....day of ..... was discharged therefrom, recovered (*or* relieved, *or* not improved), on the.....day of.....by the authority of.....

Signed (*by person having charge of the patient*).

To Commissioners.

NOTICE OF ESCAPE.—(*Ditto, Form* 16.)

I hereby give you notice that.....a private patient received into this house on the.....day of..... escaped therefrom on the.....day of..... The state of his mind at the time of his escape was.....

The circumstances and manner of the escape were as follows:.....

.....

Signed (*by person having charge of the patient*).

To Commissioners.

NOTICE OF RECAPTURE.—(*Ditto, Form* 17.)

I hereby give you notice that.....a private patient who was received into this house on the.....day of .....and escaped therefrom on the..... day of.....was on the.....day of..... recaptured under the following circumstances: .....

.....

The patient has been again received into this house under* (*or* without) a fresh reception order and certificates.

Signed (*by person having charge of the patient*).

To Commissioners.

NOTICE OF DEATH.—(*Ditto, Form* 21.)

I hereby give you notice that.....a private patient received into this house on the.....day of..... died therein on the.....day of.....

[*Here follows statement in statutory form respecting the death.*]

Signed (*by person having charge of the patient*).

To Commissioners.

* If recaptured within fourteen days within the United Kingdom, the old certificates, etc., are still in force. If any attendant aid or connive at the escape, he is liable to a fine.

NOTICE OF RIGHT TO PERSONAL INTERVIEW.

(*Schedule* 2, *Form* 6.)

Take notice that you have the right, if you desire it, to be taken before, or visited by, a justice, judge of county court, or magistrate. If you desire to exercise such right you must give me notice thereof by signing the enclosed form on or before the*.....day of.....

Dated.....190...

Signed (*by person having charge of the patient*).

NOTICE OF DESIRE FOR PERSONAL INTERVIEW.

(*Schedule* 2, *Form* 7.)

Address.....

Dated.....190...

I desire to be taken before, or visited by, a justice, judge, or magistrate having jurisdiction in the district within which I am detained.

Signed.....

CERTIFICATE AS TO PERSONAL INTERVIEW AFTER RECEPTION.—(*Schedule* 2, *Form* 5.)

I certify that it would be prejudicial to.....
.....to be taken before, or visited by, a justice, judge of county courts, or magistrate.

Signed (*by person having charge of the patient*).

---

53 *Vict. c.* 5, *s.* 335—*Sched.* 2, *Form* 17.

MEDICAL CERTIFICATE OF DISABILITY OF PERSON ENTITLED TO PAYMENTS FROM A PUBLIC DEPARTMENT.

I,.....
being a person registered under the Medical Act, 1858, and in the actual practice of my profession, hereby certify that I have this day visited and personally examined.....
and that the said.....
is unable by reason of mental disability to manage (1)..... (1) His or her

* Some day within 7 days after reception.

T

The Medical Visitor to Patient, in single care, under Certificates, must report once a fortnight, unless special permission for less frequent visits has been granted.

MEDICAL JOURNAL FOR SINGLE PATIENTS.

Date	Mental condition, what evidences of Insanity? any and what change since last visit.	Bodily Health and Condition.	Seclusion since last visit, when and how long.	Visits of Friends, dates, with name of Friend.	State of House, Furniture, Bed, and Bedding, supply and condition of Clothes.	Dietary proper? if not, state in what respect.	Employment, Exercise, and Amusement.

A register of mechanical restraint must be kept in statutory form, stating means of restraint, duration, and reason for.

affairs, and that I have formed this conclusion on the following grounds (2), viz. :.....
.....
.....

Dated this.....day of.....190...

(*Signed*) (3) .....

(4).....

(2) State them.
(3) Name.
(4) Postal address in full.

---

53 *Vict. c.* 5, *Sched.* 2.—*Form* 12.

ORDER FOR THE RECEPTION OF A PAUPER LUNATIC, OR LUNATIC WANDERING AT LARGE.

I, ... having called to my assistance .....of..... a duly qualified medical practitioner, and being satisfied that (*a*).....(*a*1) ..... is a pauper in receipt of relief* [or in such circumstances as to require relief for h proper care and maintenance†] and that the said..... is a (*b*) ..... and a proper person to be taken charge of and detained under care and treatment, *or* that (*a*) ..... is a lunatic, and was wandering at large, and is a proper person to be taken charge of and detained under care and treatment (*c*) ..... hereby direct you to receive the said..... as a patient into your (*d*)..... Subjoined is a statement of particulars respecting the said.....

(Signed).....

A Justice of the Peace for.....

Dated the.....day of.....190...

To (*e*).....

(*a*) Name of Patient.
(*a*1) Residence or occupation.
* If not "in receipt" of relief strike out these words.
† If in receipt of relief strike out the words in brackets.
(*b*) Lunatic or an idiot, *or* a person of unsound mind.
(*c*) Where the order directs the lunatic to be received into any asylum, other than an asylum of the county or borough in which the parish or place from which the lunatic is sent is situate, or into a registered hospital or licensed house, it shall state that the justice making the order is satisfied that there is no asylum of such county or borough, or that there is a deficiency of room in such asylum; or (as the case may be) the special circumstances, by reason whereof the lunatic cannot conveniently be taken to an asylum for such first-mentioned county or borough.
(*d*) Asylum *or* hospital *or* house.

STATEMENT OF PARTICULARS.

STATEMENT OF PARTICULARS REFERRED TO IN THE ABOVE OR ANNEXED ORDER.

If any particulars are not known, the fact is to be so stated.

[Where the patient is in the order described as an idiot, omit the particulars marked*.]

The following is a statement of particulars relating to the said.....

Name of patient, with Christian name at length . . . . . } .....

(*e*) The superintendent of the asylum for the county *or* borough of—— ; *or* the lunatic hospital of ——; *or* —— proprietor of the licensed house of——; *describing the asylum, hospital, or house.*

Sex and age .....
*Married, single, or widowed .....
*Rank, profession, or previous occupation (if any) .....
*Religious persuasion .....
Residence at or immediately previous to the date hereof .....
*Whether first attack .....
Age on first attack .....
When and where previously under care and treatment as a lunatic, idiot, or person of unsound mind .....
*Duration of existing attack .....
Supposed cause .....
Whether subject to epilepsy .....
Whether suicidal .....
Whether dangerous to others, and in what way .....
Whether any near relative has been afflicted with insanity .....
Union to which lunatic is chargeable .....
Names, Christian names, and full postal addresses of one or more relatives of the patient .....
Name of the person to whom notice of death to be sent, and full postal address, if not already given .....

(*i*) To be signed by the relieving officer or overseer.

Signed (*i*).....
Relieving Officer.

CERTIFICATE OF MEDICAL PRACTITIONER.

(One required, same as for private patient, Form 8, p. 570.)

Lunacy Act, 1890, *Section* 38, *and* 1891, *Section* 7.

SPECIAL REPORT AND CERTIFICATE FOR CONTINUATION OF RECEPTION ORDER.

(*Rules*, *Form* 20.)

or use by amission in Lunacy y.)

*No.....
Name of patient .....
Date of admission.....day of.....190...
Date of reception order.....
.....Asylum [or Hospital, or Licensed House].

Or hospital, or se.

I have this day seen and examined the above-named patient admitted into this Asylum (*a*).....under

Reception Order dated the.....day of.....190...
[and which Order was continued by Special Report and Certificate dated the.....day of..... .....190...], and I beg to report that with regard to mental condition he is...
.....
.....
and with regard to bodily condition he is.....
.....
.....
and I hereby certify that he is still of unsound mind, and a proper person to be detained under care and treatment.
.....

Medical Superintendent [or *Medical Officer*].
Dated.....190...

To the Commissioners in Lunacy.

Lunacy Act, 1890 (*s.* 6).

WORKHOUSE MEDICAL OFFICER'S NOTICE TO RELIEVING OFFICER AS TO PAUPER LUNATIC IN WORKHOUSE WHO OUGHT TO BE SENT TO AN ASYLUM

I,.....the Medical Officer of the.....workhouse, do hereby give you notice that one.....a pauper in the said workhouse, is a Lunatic and a proper person to be sent to an asylum.

Dated the.....day of.....One Thousand Nine Hundred and.....
.....

Medical Officer of the Workhouse.

To Mr.....
Relieving Officer.

Lunacy Act, 1890 (*s.* 16).

REQUEST TO A MEDICAL PRACTITIONER TO EXAMINE AND CERTIFY AS TO AN ALLEGED RESIDENT PAUPER LUNATIC OR LUNATIC WANDERING AT LARGE.

To..... *of* ..... { *to wit.*
a Medical Practitioner.

Whereas one..... (*a*) Or, with
a pauper resident within the .....Union (*a*), in the Parish of—

and alleged to be a lunatic (*b*), has this day been brought before me, the undersigned, one of His Majesty's Justices of the Peace in and for the said County (*c*), at..... in the said County (*c*), to be dealt with according to law.

(*b*) Or, an alleged lunatic wandering at large within the —Union or within the Parish of —.]
(*c*) Or, Borough.

I, therefore, in pursuance of the Statute in such case made and provided, do hereby request and direct you to examine the said alleged lunatic at ..... aforesaid, and to certify in writing your opinion as to h mental state and condition.

Given under my hand this.....day of..... in the Year of our Lord One Thousand Nine Hundred and .....at.....

.....

Lunacy Act, 1890 (*s.* 14).

MEDICAL OFFICER'S NOTICE AS TO RESIDENT PAUPER LUNATIC.

I,..... .....a Medical Officer of the..... Union (*a*) ..... having within three days next before the giving of this notice obtained knowledge that .... residing at .....within your district (*b*).....and chargeable to the said Union (*b*) .... is and is deemed to be a lunatic, and a proper person to be sent to an asylum, Do hereby give you notice thereof according to the provisions of the statute in such case made and provided.

(*a*) Or, Parish of — in the county of —
(*b*) Or, Parish.
(*c*) Or, One of the overseers of the said parish.

Dated the.....day of .....One Thousand Nine Hundred and.....at ..... in the said Union (*b*).....

.....

District [or *Workhouse*] *Medical Officer.*

To.....*the Relieving Officer of the said Union* (*c*).

Lunacy Act, 1890 (*s.* 13).

INFORMATION AS TO LUNATIC NOT UNDER PROPER CARE OR CONTROL, OR CRUELLY TREATED OR NEGLECTED.

to wit.

The Information of ..... constable (*a*) ... . of .... laid before me the undersigned, one of His Majesty's Justices of the Peace in and for the said (*b*) .... specially appointed under the Lunacy Act, 1890, this.....

(*a*) Or, relieving officer, or overseer of the poor.
(*b*) County or borough.

day of.....in the year of our Lord One Thousand Nine Hundred.....who upon his Oath saith that one..... ..... at..... in the parish of ..... in the said (*b*).....who is not a pauper, and is not wandering at large, is deemed to be (*c*)..... and is not under proper care and control (*d*) .....

(c) A lu or an id or pers unsoun mind.
(d) Or i cruelly ed, or i lected who ha care an charge him.

(Signed).....

Sworn this..... day of .....in the year of our Lord One Thousand Nine Hundred and..... at.....before me.

(Signed).....

A Justice of the Peace specially appointed under the above-mentioned Act.

---

53 *Vict. c.* 5, *s.* 24.—*Sched.* 2, *Form* 10.

CERTIFICATE AS TO PAUPER LUNATIC IN A WORKHOUSE.

I, the undersigned Medical Officer of..... workhouse, of the.....Union, hereby certify that I have carefully examined into the state of health and mental condition of.....a pauper in the said workhouse, and that he is in my opinion a lunatic, and a proper person to be allowed to remain in the workhouse as a lunatic, and that the accommodation in the workhouse is sufficient for his proper care and treatment separate from the inmates of the workhouse not lunatics [*or* that his condition is such that it is not necessary for the convenience of the lunatic or of the other inmates that he should be kept separate].

The grounds for my opinion that the said ..... is a lunatic are as follows: ....

Dated this.....day of.....190..

Signed.....

Medical Officer of the Workhouse.

53 *Vict. c.* 5, *s.* 25.—*Form* 23.

CERTIFICATE OF MEDICAL OFFICER OF ASYLUM THAT A PAUPER LUNATIC DISCHARGED FROM ASYLUM NOT RECOVERED IS A PROPER PERSON TO BE KEPT IN A WORKHOUSE.

I, the undersigned .....
being (*a*).....do hereby certify that in my opinion.....a pauper lunatic now being discharged from the (*b*) .....
has not recovered, and is a proper person to be kept in a workhouse as a lunatic.

(*Signed*).....

(*c*).....

Dated this.....day of.....190...

[*A copy of this Certificate is to accompany the Notice of Discharge.*]

(a) Medical superintendent or resident medical officer of the —— asylum, or superintendent of —— hospital or resident medical practitioner, —— house.
(b) —— asylum or —— hospital, or —— house.
(c) Medical officer of the —— asylum or —— hospital, or —— house.

NOTICE OF ADMISSION.

PAUPER PATIENT.

(*Rules, Form* 8.)

Date of Reception Order, the.....day of.....190...

I hereby give you Notice, That .....
was admitted into this Asylum (*a*).....
as a pauper patient, on the..... .....day of.....190...
and I hereby transmit a copy of the Reception Order and Medical Certificate.

Subjoined is a Statement with respect to the mental and bodily condition of the above-named patient.

Signed..... .....

(*b*).....

Dated this.....day of.....190...

To the Commissioners in Lunacy.

(a) House or hospital.

MEDICAL STATEMENT.

I have this day (*c*) seen and examined .....
the patient mentioned in the above Notice, and hereby certify that with respect to mental state he is .....
.....
and that with respect to bodily health and condition he is.....

Dated this..... day of .....190...

Signed.....

(*d*).....

(b) Clerk of the —— asylum, or manager of the lunatic hospital known as ——, situate at ——.

(c) Some day not less than two clear days after the admission of the patient.
(d) Medical officer of the asylum, or hospital known as ——, situate at ——.

Form 15, *Sched.* 2.

ORDER FOR RECEPTION OF A LUNATIC NOT UNDER PROPER CARE AND CONTROL, OR CRUELLY TREATED OR NEGLECTED, TO BE MADE BY A JUSTICE "SPECIALLY APPOINTED" UNDER THE ACT OF 1890.

I, the undersigned.....being a Justice for.....specially appointed under the Lunacy Act, 1890, having caused..... .....to be examined by two duly qualified medical practitioners, and being satisfied that the said..... .....is a lunatic not under proper care and control (or is cruelly treated or neglected by the person having the care or charge of him), and that he is a proper person to be taken charge of and detained under care and treatment, hereby direct you to receive the said ..... as a patient into your asylum (or hospital or house). Subjoined is a statement of particulars respecting the said..... .....

Signed..... .....

Justice of the Peace for.....appointed under the above-mentioned Act.

Dated the.....day of.....190...

To the Superintendent of the Asylum for.....
(or hospital, or the resident licensee of the licensed house at .....

STATEMENT OF PARTICULARS.

(Same as on p. 579.)

CERTIFICATE OF MEDICAL PRACTITIONER.

(Two required, as in Form 8, p. 570.)

APPENDIX B.

SCHEME FOR THE EXAMINATION OF CASES OF MENTAL DEFECT AND DISORDER, SUSPECTED OR ACTUAL.

(*a*) FAMILY HISTORY.

Parents, uncles and aunts (both sides, father's and mother's), brothers, sisters, or their children, cousins, grand-parents (both sides), etc., as far back as is known.

1. Are the parents related to each other?
2. Age of parents when patient born?
3. Occupation of parents?
4. Anyone in the family of parents on either side, dead or alive, having or had fits?
5. Any evidence of syphilis in father and mother?
6. Anyone had a stroke of paralysis?
7. Cause of death of parents, if dead, and age at death?
8. Anyone been weak in mind from childhood?
9. Unusual talent in any?
10. Anyone insane, now or formerly?
11. Anyone committed suicide?
12. Any show moral defects?
13. Anyone intemperate, or been so (drinking too much occasionally, or as a rule)?
14. Anyone hysterical, or suffering from St. Vitus's dance, now or formerly?
15. Anyone with withered or shrunken limb or limbs?
16. Anyone suffering from headaches, migraine, neuralgia, often or badly, now or formerly?
17. Anyone consumptive (in decline)?
18. Anyone asthmatic or suffering from gout, now or formerly?
19. Anyone suffering from diabetes?
20. Any family disposition to disease?
21. Anyone peculiar in ways (without being actually insane)?

22. Are, or were, the parents healthy and without noteworthy physical peculiarity?

23. Are, or were, they of normal intelligence?

24. If the patient has children, how many, and are they healthy, in mind and body? If dead, age at and cause of death?

25. (Observe any relatives of patient who may present themselves.)

(*b*) THE PATIENT'S PERSONAL HISTORY.

1. Were pregnancy and childbirth normal in case of patient? Full-term child? Instruments?

2. Has patient been weak in mind since childhood, or of ordinary intelligence? Could he up to now earn own living?

3. At what age did patient cut teeth and begin to walk and talk?

4. Behaviour in school and progress there? Precocious? Backward?

5. Behaviour in play?

6. Did the patient ever have a fit in childhood or after? (Including fits at teething.) Somnambulism?

7. Behaviour during puberty and adolescence? If female, when did menstruation begin, and has it been normal? When did it cease? Sterility?

8. If male, sexual history (impotence, perversion, including self-abuse)?

9. Was patient always temperate in habits (steady, and quiet living, in regular work)?

10. Was patient ever hysterical, or affected by St. Vitus's dance? General health?

11. Did patient complain much of headaches, migraine, neuralgia?

12. Any evidence of acquired syphilis?

13. Did this attack follow any illness (such as fever or influenza, gout or rheumatism)?

14. What previous illnesses?

15. Did patient ever receive a severe blow on the head? Sunstroke?

16. Moral delinquencies?

17. What was patient's disposition or character? Gloomy, selfish, emotional, excitable, eccentric, etc., or much like other people?

18. Is this the first attack? If not, when previous attack? Where treated, of what duration, and how has patient been since?

19. Addicted to use of any drug?

20. For how long do you think he showed a change before coming here? (Gradual or sudden change?)

21. Excessive physical or mental work?

22. Is there any cause known?

23. Say how the insanity *began*, and what after that were the chief things noticed wrong about patient (behaviour, actions, conversation, sleep, appetite, etc.).

PRESENT PHYSICAL STATE.

General bodily condition.—General appearance. State of muscles (general or local wasting). State of nutrition, adipose covering, etc. Weight. Chest circumference. Temperature. Height. Deformities. Scars, bruises, or other signs of recent or old injury. Eruptions or growths on skin or elsewhere. Incongruity between age and appearance. State of joints. Evidence of syphilis. Exophthalmos. Complexion. Furrows and lines of expression. Innervation of facial muscles (irregular movements). Thyroid gland. Superficial lymphatic glands.

Nervous system.—Paralysis. Left-handed. Dynamometer, right hand. Left ditto. Power in legs. Tremors (including of tongue). Co-ordination and equilibrium (muscular sense). Localisation. Gait. Speech. Writing. Voice. Tactile and pain sensation. Thermic ditto. Spontaneous pains. Paræsthesia. Pain on pressure at issue-points of nerves. Superficial reflexes. Deep ditto. Recognition of objects per the various senses. Ankle clonus. Electrical reactions. Trophic lesions. Sight: Movements of eyes. Strabismus. Nystagmus. Ptosis. Pupils: Size, equality, outline (eccentric, irregular). Mobility to light (direct, indirect). Ditto to accommodation. Colour sense. Errors of refraction. Ophthalmoscopic report. Hearing: aural examination. Taste. Smell, both sides.

Vascular system.—Œdema. Flush, pallor or cyanosis. Varicose veins. Injection of cutaneous capillaries. Arcus senilis. Pulse. State of vessel wall. Tension. Heart. Blood (corpuscles, hæmoglobin).

Respiratory system.—Rate of breathing. Cough. Sputum. Examination of lungs. Chest conformation.

Alimentary system.—Appetite. Deglutition. Teeth. Gums. Tongue. Breath. Hepatic dulness. Herniæ (state whether reducible). State of bowels.

Vaginal examination (only when specially indicated). State of breasts. Menstruation. Urine, examination of (including amount in 24 hours). Micturition. Sweat.

ANTHROPOLOGICAL EXAMINATION.

(This portion of the scheme is based largely upon the work of Dr. Alphonse Bertillon, "Signaletic Instructions," translated into English, in 1896, under the editorship of R. W. McClaughry [Werner Company], to which the author here expresses his indebtedness), and also upon Emil Schmidt's "Anthropologische Methoden," Leipzig, 1888.

Measurements (Metric System).

Height of the crown of the head above the ground (*a*).

Height of the upper margin of the external auditory meatus above the ground (*b*).

Height of the margin of the chin above the ground (*c*).

Height of the brain-case above the auditory canal by subtracting (*b*) from (*a*).

Height of the head by subtracting (*c*) from (*a*).

Height of the upper margin of the sternum above the ground (*d*).

Height of the centre of the umbilicus above the ground.

Height of the upper margin of the symphysis pubis above the ground (*e*).

Length of the trunk in front by subtracting (*e*) from (*d*).

Length of the upper arm (tip of the acromion to the head of the radius).

Length of the forearm (head of the radius to the tip of the styloid process).

Length of the hand (level of the tip of the styloid process to the tip of the middle finger).

Height of the anterior superior iliac spine above the ground.

Height of the upper margin of the great trochanter above the ground.

Height of the knee-joint above the ground (from the groove between the femur and the tibia).

Height of the tip of the internal malleolus above the ground.

Height of the seventh cervical process above the ground.

Breadth of the shoulders (outer edges of the acromion processes).

Reach (from tip to tip of the middle fingers, the face to the wall).

Distance between the anterior superior iliac spines.

Greatest distance between the iliac crests (difficult in stout persons).

Greatest distance between the great trochanters.

Chest circumference at the armpit level (in mid-respiratory state).

Depth of chest with callipers at level of nipples.

Circumference of the knee, the ankles, and the wrist (at fixed points).

Length of the thumb (from the metacarpo-phalangeal joint).

Length of the middle finger from the metacarpo-phalangeal joint.

Distance between the chin-point and the root of the nose.

Breadth of the hand at the knuckles (closed hand).

Length of the foot (to the tip of the great toe).

Greatest breadth of the foot.

Height of the crown of the head from the seat (sitting posture).

Greatest antero-posterior diameter of the skull (from the glabella to the furthest occipital mid-point).

Circumference of the cranium (through the previous two points).

Naso-occipital arc (root of the nose to the lowest point of the external occipital protuberance).

Naso-bregmatic arc (root of the nose to the bregma) (*f*).

Naso-lambdoidal arc (root of the nose to the lambda) (*g*) more often obtainable than the former.

Bregmato-lambdoidal arc (*f*) from (*g*).

Binauricular arc (taken at the post-glenoid process temporal bone each side).

Auriculo-bregmatic radius (from the same points to the bregma).

Auriculo-bregmatic arc.

Greatest transverse diameter of the cranium.*

Binauricular diameter (from the same points as the arc).

Empirical greatest height of the cranium (from last and auriculo-bregmatic radii).

Lead strip curves of the cranium: antero-posterior (over the glabella and occipital protuberance); horizontal (over the glabella and furthest occipital point); and transverse (corresponding to the greatest diameter: or over the binauricular arc).

Length-breadth index of the cranium.

Greatest breadth across the malar bones.

Greatest breadth between external margins of orbits.

Breadth between the external angles of the eyes (*h*).

* To obtain the measurements on the *skull* a deduction is made for the skin and hair (3 to 6 per cent., according to the measurement). Note abundance or reverse of hair. The value of these measurements is diminished by their being taken over hair. A deduction is sometimes made for the latter in the case of ordinary measurements on the living subject.

Breadth between the internal angles of the eyes (*i*).

Sum of the breadth of the eyes (*i*) from (*h*).

Breadth of the mouth.

Breadth between the angles of the lower jaw.

Distance from the angle of lower jaw to the chin-point, right, and left.

Distance between the central-point of the lower margin of the chin and starting line of hair.

Distance between the chin-point and the angle between the nose and the upper lip.

Distance between the chin-point and the mouth-fissure.

Distance between the external angle of the eye and the angle of the mouth, right and left.

Greatest height of the orbits, right and left.

Distance between the root of the nose and the post-glenoid process of temporal bone, right and left.

Distance between the chin-point and post-glenoid process, right and lelt.

Distance between the nose-tip and the post-glenoid process, right and left.

Distance between the external angle of the eye and the post-glenoid process, right and left.

Linear measurement from the angle between the nose and the lip and the post-glenoid process, right and left.

Direct measurement between the same points.

Breadth of the nose at the nostril attachment.

Facial angle, right and left.

Breadth between the temporal ridges, just above the external angular process of the frontal bone.

Descriptions.

General form of cranium (macrocephalus, micro-, chæmo-lepto-, scapho-, oxy-, plagio-, trigono-, trochocephalus, etc.). Viewed from above, behind, laterally; any local characteristics of the cranium; asymmetry.

Forehead.—Inclination of the frontal line; gradations from receding to prominent or bulging. Prominence of the frontal bosses. Height (measure). Width: gradations from little to great. Degree of prominence of the superciliary arches. Degree of prominence of the frontal sinuses.

Face generally.—Shape long and narrow, short and broad, etc., lozenge shaped. Asymmetry (see measurements). Proportions between the forehead and the lower part of the face. Interocular space, abnormally large or small.

Nose.—1. Shape: (*a*) concavity of the root, size of; (*b*) general shape of the ridge, concave, rectilinear, convex, cave-

sinuous, rectil-sinuous, vex-sinuous (Bertillon); and (*c*) inclination of the lower edge.

2. Dimensions (to eye): (*a*) height (root to the nostril attachment) gradations, little to great; (*b*) projection, same gradations; (*c*) width (between wings); (*d*) depth and (*e*) large or small, in proportion to face.

3. Peculiarities; as tapering, thick, bilobed, shape and formation of the nostrils, deviation of the nose, etc.

Lips.—In profile: height of the upper lip, little, medium, great; relative prominence of the lips, thickness of, thin, thick, "blubber," lower pendant, median furrow of upper accentuated, pouting or compressed (permanent or habit).

Mouth.—Pinched, gaping, normal; corners elevated, depressed, horizontal.

Cheek-bones.—Prominence of.

Chin (in profile).—Inclination of: receding, medium, projecting. Ball of: absent, medium, large. High, medium, low.

Eye.—Palpebral fissure: little or much slit, horizontally, little or much open, vertically; direction of fissure, horizontal, oblique. Mongolian characteristics. Upper lid: covered, uncovered, patient looking forward; drooping. Balls: sunken, protruding. *Eyebrows* (Bertillon): heads near, distant, united, low, high (middle eyebrow to centre of the eyeball); rectilinear, arched; oblique (and direction, if last) or horizontal; short, long, narrow, wide. Hairs; scanty, abundant, long, short, blonde, or dark. *Eyelashes:* long, short, abundant, scanty, or absent. *Iris:* general colour of, flecks on, chromatic asymmetry, coloboma, etc. *Eye anomalies:* strabismus, nystagmus, etc. (Refractive errors probably constitute a special study.)

Ear.—Maximum length and breadth. Length of implantation. Length from the nose-lip angle to the upper and to the lower limit of implantation. Insertion: perpendicular, oblique. Separation from head; in whole or in part. Clinging to head; in whole or in part. Supero-posterior contour; acute, square, round. Helix (regarded in three parts, anterior, superior, and posterior): small, medium, large, absent, flat. Open, intermediate, adherent, regular, rumpled. Fossa of: shallow, deep, broad, narrow. Darwinian nodosity, or tubercle present. Antihelix: convex, concave, intermediate (on vertical sagittal plane); superior division of, accentuated, medium, *nil*, any peculiarity of its branches, fossa of, small, large, deep, shallow. Antitragus (general direction of), horizontal, intermediate, oblique; edge of, rectilinear, projecting, intermediate; everted, intermediate, erect; small, medium, large. Tragus: large, medium, small; posterior

edge bifurcated. Post-tragical fissure. Concha: small, large, deep, shallow, traversed. Lobule: square, intermediate, gulfed; blending, intermediate, separated; channelled, dimpled; elevated, intermediate; small, medium, large. Mobility of ear (volitional).

Hard palate.—Cast if possible (saving of time to take several different cases at one sitting. The casts can be detached from the moulds and shaped subsequently). General observations *re* shape of vault and of alveolar margin. Note cleft. Soft palate and uvula; arches of the former symmetrical. Uvula: size, shape, whether bifurcated, and whether deviating to one side when the palate is raised.*

Tongue.—Any peculiarities in size and form.

Teeth.—Large, small, irregular, deformed, misplaced, projecting. Diastema, numerical augmentation of, etc. Note great development of the superior central incisors with lateral incisors (or absent). State of enamel.

General contour of the head.—Slight (superior) prognathism, naso-prognathic, orthognathic.

Lower jaw prominent.

Fronto-nasal profile.—Rectilinear, angular, parallel (or nearly so), semi-lunar.

Occiput.—Flat, bulging.

Skin.—Anomalies of, such as nævi; pigment spots, fibromata, albinism, coloration of.

Hair.—Amount on head, face, trunk, and limbs. Premature greyness; excess of (normal) local growth, coarse, fine, straight, wavy, curly. Glabrous chin and cheeks in men. Growth on unusual parts. Asymmetry in growth at any part. Low growth on forehead. Colour of hair: black, coal-black, dark brown, chestnut, yellow, flaxen, red (auburn).

Nails.—Abnormalities of.

Limbs.—Congenital contractions, paralyses, atrophy, luxations and joint anomalies, abnormalities in size or appearance (as feminine types in men).

Form of hands, feet, and digits, excess of digits.

Note size of great toe and dimensions of space between it and second toe, with unusual mobility of first.

Body generally.—Giantism, dwarfism, asymmetry. State of breasts and genitalia. Buttocks asymmetrical. Feminism, masculinism. Infantile traits. Deviations of spine, chest conformation, etc.

* Dr. C. L. Dana (New York) found that 13 per cent. of non-neurotic patients showed deviation as against 31 per cent. in the insane.

PRESENT MENTAL STATE.

Intellectual state.—Appreciation of, reply to questions. Reaction generally (including simple reaction—time experiments). Cognition of self and surroundings. Appreciation of time and place. Appreciation of present state. Association of ideas, and flow (confusion, incoherence). Hallucinations. Illusions. Mistakes in identity. Suspicions. Delusions. Memory for recent events. Memory for remote events. Dementia (primary—stupor—secondary). Amentia—degree of. Peculiar habits and eccentricities, mannerisms, grimacings, peculiar movements. Epileptic. Cataleptic.

Emotional state.—Depression. Excitement. Exaltation. Self-depreciation. Alternating states. Impulsive. Suicidal. Homicidal. Erotic. Destructive. Religious disturbances. Facial expression.

State of volition.—Power of attention (excess of non-voluntary). Attention to personal needs. Self-control (impulses, doubts, obsessions). Ability to work. General conduct.

Moral sense.—Regard for others. Self-respect. Sense of propriety. Moral obliquity or perversion (self-abuse).

Sleep. Dreams. Restlessness. Resistiveness. Hostility, etc.

APPENDIX C.

HOSPITALS FOR THE INSANE AND IDIOT ASYLUMS—PRIVATE ASYLUMS.

LIST of all COUNTY and BOROUGH ASYLUMS, REGISTERED HOSPITALS, and LICENSED HOUSES in *England* and *Wales*, with the Names of the Medical Superintendents, Licensees, Clerks to Committees of Visitors and Clerks to Visitors, and Medical Visitors.

COUNTY AND BOROUGH ASYLUMS.

COUNTIES, UNITED COUNTIES, AND BOROUGHS.	WHERE SITUATE.	MEDICAL SUPERINTENDENTS.	CLERKS TO COMMITTEE OF VISITORS.
Beds, Herts, and Hunts . .	Near Hitchin . .	S. E. de Lisle, L.R.C.P.	F. N. Butler, St. Neots.
Berks, Reading C.B., Newbury B., and New Windsor B.	Moulsford, Wallingford	J. W. A. Murdoch, M.B.	J. T. Morland, 28, The Forbury, Reading.
Brecon and Radnor . . .	Talgarth R.S.O., Brecon	R. Pugh, M.D. . .	J. H. Evans, The Asylum.
Bucks.	Stone, Aylesbury .	J. Humphry, M.R.C.S.	W. Crouch, Aylesbury.
Cambs., Cambridge B., and Isle of Ely	Fulbourn, Cambridge .	E. Coulton Rogers, M.R.C.S.	T. M. Francis, Cambridge.
Carmarthen, Cardigan and Pembroke	Carmarthen . . .	John Richards, M.B. .	W. M. Griffiths, Carmarthen.
Chester C., Birkenhead C.B., and Stockport (part) C.B.	Upton, Chester . .	A. Lawrence, M.D. .	A. Hornby, The Asylum.
" " " .	Parkside, Macclesfield	T. S. Sheldon, M.B. .	A. C. Procter, 23, King Edward Street, Macclesfield.
Cornwall	Bodmin . . .	H. A. Layton, L.R.C.P. Ed.	R. P. Edyvean, Bodmin.
Cumberland and Westmorland	Carlisle . . .	W. F. Farquharson, M.D.	C. W. A. Hodgson, Carlisle.
Denbigh, Anglesea, Carnarvon, Flint, and Merioneth C.	Denbigh . . .	L. F. Cox, M.R.C.S. .	W. Barker, The Asylum.
Derby C.	Mickleover, Derby .	R. J. Legge, M.D. .	B. Scott Currey, Derby.
Devon	Exminster . . .	A. N. Davis, L.R.C.P. Ed.	H. Michelmore, The Castle, Exeter.
Dorset	Dorchester . . .	P. W. MacDonald, M.D.	H. Till, 5, South Street, Dorchester.
Durham C., Gateshead C.B., South Shields C.B., and West Hartlepool C.B.	Winterton, Ferry Hill	W. St. J. Skeen, M.B.	A. O. Smith, 19, Elvet Bridge, Durham.

COUNTY AND BOROUGH ASYLUMS (*continued*).

Counties, United Counties, and Boroughs.	Where Situate.	Medical Superintendents.	Clerks to Committee of Visitors.
Essex and Colchester B. . .	Brentwood . . .	G. Amsden M.B. . .	W. P. Gepp, Chelmsford.
Glamorgan and Swansea C.B.	Bridgend . . .	R. S. Stewart, M.D. .	W. E. R. Allen, Glamorgan County Council Offices, Cardiff.
Gloucester C. and Gloucester C.B.	Gloucester . . .	F.H.Craddock, M.R.C.S.	J. Thompson, The Asylum.
Hants	Knowle, Fareham .	H. K. Abbott, M.D. .	J. R. Wyatt, The Asylum.
Hereford (County and City) .	Burghill, Hereford .	C. S. Morrison, L.R.C.P. Ed.	H. E. Morgan, The Asylum.
Herts	Hill End, St. Albans .	A. N. Boycott, M.D. .	C. E. Longmore, Clerk of the Peace, Hertford.
Kent and Gravesend B. . .	Barming Heath, Maidstone	H. Wolseley-Lewis, F.R.C.S., M.D., Brussels.	F. R. Howlett, Maidstone.
,, ,, . .	Chartham, Canterbury	G. C. FitzGerald, M.D.	Henry Fielding, Canterbury.
Lancaster C., all the County Boroughs, and Stockport (part) C.B.	Lancaster Moor . .	D. M. Cassidy, M.D. Montr., L.R.C.P. and S. Ed.	Allan Sewart, North Road, Lancaster.
,, ,, ,, ,, .	Rainhill, Liverpool .	J. Wiglesworth, M.D.	T. Garner, 49, Corporation Street, St. Helens.
,, ,, ,, ,, .	Prestwich, Manchester	F. Perceval, M.R.C.S. .	H. T. Crofton, 36, Brazenose Street, Manchester.
,, ,, ,, ,, .	Whittingham, Preston	J. F. Gemmell, M.B. .	L. Cotman, 8, Lune Street, Preston.
,, ,, ,, ,, .	Winwick, Warrington .	A. Simpson, M.D. .	J. S. Francomb, Sun Chambers, Kennedy Street, Manchester.
Leicester C. and Rutland . .	Leicester . . .	R. C. Stewart, M.R.C.S.	W. J. Freer, New Street, Leicester.
Lincoln (Lindsay Holland, Grimsby C.B. and Lincoln City)	Bracebridge, Lincoln .	Thos. L. Johnston, L.R.C.P. Ed.	W. T. Page, jun., Lincoln.
Lincoln (Kesteven) . . .	Rauceby, Sleaford .	J. A. Ewan, M.D. .	T. H. Holdich, Sleaford.

COUNTY AND BOROUGH ASYLUMS (*continued*).

Counties, United Counties, and Boroughs.	Where Situate.	Medical Superintendents.	Clerks to Committee of Visitors.
London C.	Banstead Downs, Sutton	D. J. Jones, M.D. .	H. F. Keene, London County Asylums Committee Office, 6, Waterloo Place, S.W.
,, ...	Bexley, Kent . .	T. E. K. Stansfield, M.B.	,, ,, ,, ,, ,,
,, ...	Cane Hill, Purley, Surrey	J. M. Moody, L.R.C.P. Ed.	,, ,, ,, ,, ,,
,, ...	Claybury, Woodford, Essex	R. Jones, M.D. . .	,, ,, ,, ,, ,,
,, ...	Colney Hatch, N. .	W. J. Seward, M.B. .	,, ,, ,, ,, ,,
,, ...	Hanwell, W. . .	Percy J. Baily, M.B. .	,, ,, ,, ,, ,,
,, ...	Horton Asylum, Epsom	F. Bryan, M.B. . .	,, ,, ,, ,, ,,
,, ...	Manor Asylum, Epsom	W. I. Donaldson, M.D.	,, ,, ,, ,, ,,
,, ...	EpilepticColony, Ewell	C. Hubert Bond, M.D.	,, ,, ,, ,, ,,
Middlesex	Wandsworth, S.W. .	H. G. Hill, M.R.C.S. .	H. S. Freeman, Staines.
,, ...	Napsbury, St. Albans .	N. W. Rolleston, M.B.	W. G. Austin, Guildhall, Westminster S.W.
Monmouth	Abergavenny . .	Jas. Glendinning, M.D.	Charles Owen, The Asylum.
Norfolk	Thorpe, Norwich .	D. G. Thomson, M.D. .	P. Hansell, The Close, Norwich.
Northampton C. . . .	Berrywood, Northampton	W. Harding, M.D. .	C. A. Markham, 1, Guildhall Road, Northampton.
Northumberland and Tynemouth C.B.	Cottingwood, Morpeth	T. W. McDowall, M.D.	Henry D. Irwin, 9, Prudhoe Terrace, Tynemouth.
Notts C.	Radcliffe-on-Trent .	A. M. Jackson, M.D. .	J. F. Gell, The Asylum.
Oxford C. and Oxford City .	Littlemore, Oxford .	T. Saxty Good, M.R.C.S.	T. M. Davenport, County Hall, Oxford.
Salop and Montgomery, Shrewsbury B., and Wenlock B.	Bicton, Shrewsbury .	D. F. Rambaut, M.D. .	W. Baxter, Shirehall, Shrewsbury
Somerset and Bath C.B. . .	Wells . . .	G. Stevens Pope, L.R.C.P., Ed.	John Coates, The Asylum.

COUNTY AND BOROUGH ASYLUMS (*continued*).

Counties, United Counties, and Boroughs.	Where Situate	Medical Superintendents.	Clerks to Committee of Visitors.
Somerset and Bath C.B. . .	Cotford, Taunton .	H. T. S. Aveline, L.R.C.P.	Isaac Lodge, The Asylum.
Stafford C., Burton-on-Trent C.B., and Newcastle-under-Lyme B.	Stafford . . .	J. W. S. Christie, L.R.C.P. Ed.	M. F. Blakiston, Stafford.
,, ,, ,, ,, .	Burntwood, Lichfield .	J. B. Spence, M.D. .	,, ,, ,,
,, ,, ,, ,, .	Cheddleton, Leek .	W. F. Menzies, M.D. .	,, ,, ,,
Suffolk (East and West) . .	Melton, Woodbridge .	J. R. Whitwell, M.B. .	A. T. Cobbold, County Hall, Ipswich.
Surrey and Guildford B. . .	Brookwood, Woking .	James E. Barton, L.R.C.P. Ed.	M. E Reed, County Hall, Kingston-on-Thames.
Sussex (East)	Hellingly . . .	F. R. P. Taylor, M.D.	Reginald Blaker, Lewes.
,, (West)	Chichester . . .	Hrld. A. Kidd, L.R.C.P.	E. H. Blaker, West Pallant, Chichester.
Warwick C., Coventry C.B., and Warwick B.	Hatton, Warwick .	Alfred Miller, M.B. .	R. C. Heath, 1, New Street, Warwick.
Wight, Isle of	Whitecroft, Newport	Harold Shaw, M.B. .	J. H. Green, The Asylum, Newport, I.W.
Wilts	Devizes . . .	J. I. Bowes, M.R.C.S. .	J. T. Jackson, Devizes.
Worcester C., Dudley C.B., and Worcester C.B.	Powick, Worcester .	G. M. P. Braine-Hartnell, L.R.C.P.	W. Price Hughes, Worcester.
York, N. Riding . . .	Clifton, York . .	A. J. Eades, L.R.C.P. I.	Robert Holtby, York.
,, W. Riding, and Bradford, Halifax, Huddersfield, Leeds, Rotherham, and Sheffield C.B.	Menston, Leeds . .	J. G. McDowall, M.D. .	Trevor Edwards, Wakefield.
,, ,, ,, and Doncaster B.	Wadsley, Sheffield .	W. S. Kay, M.D. . .	Messrs. Dixon and Horne, County Hall, Wakefield.
,, ,, ,, . .	Wakefield . . .	W. Bevan Lewis, L.R.C.P.	,, ,, ,, ,, ,,

COUNTY AND BOROUGH ASYLUMS (*continued*).

Counties, United Counties, and Boroughs.	Where Situate.	Medical Superintendents.	Clerks to Committee of Visitors.
York, West Riding (for private patients)	Scalebor Park, Burley-in-Wharfedale.	J. R. Gilmour, M.B.	Messrs. Dixon and Horne, County Hall, Wakefield.
,, ,, ,, Storthes Hall	Kirkburton, Huddersfield	T. Stewart Adair, M.D.	Trevor Edwards, County Hall, Wakefield.
,, E. Riding	Beverley	M. D. Macleod, M.B.	C. W. Hobson, Beverley.
Boroughs.			
Birmingham	Winson Green, Birmingham	E. B. Whitcombe, M.R.C.S.	W. Hutton, Council House, Birmingham.
,,	Rubery Hill, Bromsgrove	A. C. Suffern, M.D.	,, ,, ,, ,, ,,
Brighton	Haywards Heath, Sussex	E. B. C. Walker, M.D.	Hugo Talbot, Town Hall, Brighton.
Bristol	Fishponds, Bristol	J. V. Blachford, M.D.	Edmund J. Taylor, The Council House, Bristol.
Canterbury	St. Martin's Hill, Canterbury	Norman Lavers, M.D.	H. Fielding, Town Hall, Canterbury.
Cardiff	Whitchurch, Glam.	E. Goodall, M.D., F.R.C.P.	Town Clerk, City Hall, Cardiff.
Croydon	Warlingham, Whyteleafe, S.O., Surrey	E. S. Pasmore, M.D.	F. C. Lloyd, Town Hall, Croydon.
Derby	Rowditch, Derby	S. R. Macphail, M.D.	G. T. Lee, Town Hall, Derby.
Exeter	Digbys, Heavitree	R. L. Rutherford, M.D.	Town Clerk's Office, Exeter.
Hull	De la Pole, Willerby, Hull	John Merson, M.D.	E. Laverack, Town Hall, Hull.
Ipswich	Ipswich	E. L. Rowe, L.R.C.P. Ed.	W. Bantoft, Town Hall, Ipswich.
Leicester	Humberstone, Leicester	J. E. M. Finch, M.D.	E. V. Hiley, Town Hall, Leicester.

COUNTY AND BOROUGH ASYLUMS (*continued*).

Counties, United Counties, and Boroughs.	Where Situate.	Medical Superintendents.	Clerks to Committee of Visitors.
Boroughs (*continued*).			
London (City of)	Stone, Dartford	R. H. Steen, M.B.	C. Fitch, Guildhall, E.C.
Middlesbrough	Cleveland, Middlesbrough	J. W. Geddes, M.B.	Alfred Sockett, Municipal Buildings, Middlesbrough.
Newcastle-on-Tyne	Gosforth, Newcastle-on-Tyne	J. T. Callcott, M.D.	J. Atkinson, Victoria Chambers, Newcastle-on-Tyne.
Newport	Caerleon, Mon.	W. F. Nelis, M.D.	A. A. Newman, Town Clerk's Office, Newport, Mon.
Norwich	Hellesdon, Norwich	Wm. Harris, M.D.	A. H. Miller, Guildhall, Norwich.
Nottingham	Mapperley Hill, Nottingham	Evan Powell, M.R.C.S.	E. T. Ronald, Guildhall, Nottingham.
Plymouth	Blackadon, Ivybridge	W. H. Bowes, M.D.	J. H. Ellis, Town Clerk's Office, Plymouth.
Portsmouth	Milton, Portsmouth	B. H. Mumby, M.D.	A. Hellard, Municipal Offices, Arundel Street, Portsmouth.
Sunderland	Ryhope, Sunderland	Jas. Middlemass, M.D.	F. M. Bowey, Town Hall, Sunderland.
West Ham	Goodmayes, Ilford, Essex	D. Hunter, M.B.	F. E. Hilleary, LL.D., Town Hall, West Ham, E.
York	Fulford, York	C. L. Hopkins, M.B.	R. Percy-Dale, Guildhall, York.

COUNTY AND BOROUGH ASYLUMS HAVING SPECIAL ACCOMMODATION FOR PRIVATE PATIENTS.

Cornwall Asylum: In separate building.
Cumberland Asylum: Quiet cases in separate buildings.
Herrison, Dorchester: In separate building.
Claybury, The Hall (males only): In separate building.
Middlesex, Napsbury: Two separate villas.
Warwick Asylum: Separate block.
Isle of Wight: Separate block.
Scalebor Park: All private.
Canterbury: Separate building.
Derby Borough: Separate block for females.
City of London: Separate villa for ten females, others in separate wards.

COUNTY.	HOSPITALS.	MEDICAL SUPERINTENDENTS.
Chester	Manchester Royal Lunatic Hospital, Cheadle	W. Scrowcroft, M.R.C.S.
Devon	Wonford House, Exeter	P. M. Deas, M.B.
Gloucester	Barnwood House, Gloucester	J. G. Soutar, M.B.
Lincoln	Lincoln Lunatic Hospital, The Lawn, Lincoln	A. P. Russell, M.B.
Middlesex	St. Luke's Hospital, Old Street, E.C.	W. Rawes, M.D.
Norfolk	Bethel Hospital, Norwich	J. Fielding, M.D.
Northampton	St. Andrew's Hospital, Northampton	J. Bayley, M.R.C.S.
Notts	Nottingham Lunatic Hospital, The Coppice, Nottingham	W. B. Tate, M.D.
Oxford	Warneford Asylum, Headington Hill, Oxford	James Neil, M.D.
Stafford	Coton Hill Lunatic Hospital, Stafford	R. W. Hewson, L.R.C.P. Ed.
Surrey	Bethlem Royal Hospital, Lambeth Road, S.E.	T. B. Hyslop, M.D.
,,	Holloway Sanatorium, St. Ann's Heath, Virginia Water	W. D. Moore, M.D.
York City (N.R.)	York Lunatic Hospital, "Bootham Park," York	C. K. Hitchcock, M.D.
,, ,, (E.R.)	The Retreat, York	Bedford Pierce, M.D.
IDIOT ESTABLISHMENTS: Registered under "The Idiots Act, 1886."		
Devon	Western Counties Idiot Asylum, Starcross	E. W. Locke, Superintendent.
Essex	Eastern Counties Idiot Asylum, Colchester	J. J. C. Turner, Superintendent; F. Douglas Turner, M.B., Resident Medical Chief Officer.
Lancaster	Royal Albert Asylum for Idiots, Lancaster	A. R. Douglas, L.R.C.P., Medical Superintendent and Officer.
Somerset	Magdalen Hospital School, Coombe Down, Bath	Miss Jane Quinton, Superintendent.
Surrey	Asylum for Idiots, Earlswood, Redhill	C. Caldecott, M.B.
Warwick	Midland Counties Idiot Asylum, Knowle, near Birmingham.	H. Williams, Sec. and Superintendent.
MILITARY AND NAVAL HOSPITALS:		
Hants	Royal Military Hospital, Netley, Southampton.	A. G. Kay, M.B., Lt.-Col., R.A.M.Corps.
Norfolk	Royal Naval Hospital, Yarmouth	A.G.Andrews,L.R.C.P.,FleetSurgeon,R.N.
CRIMINAL ASYLUM:		
Berks	State Criminal Asylum, Broadmoor, Crowthorne	R. Brayn, L.R.C.P.

METROPOLITAN LICENSED HOUSES.

[*q*. Limited to quiet and harmless cases.]

Houses.		Number of Patients for which Licensed			To Whom Licensed.
		M.	F.	T.	
I. Receiving both Private and Pauper Patients.					
Of both Sexes:					
Bethnal Green, N.E.	Bethnal House, Cambridge Road .	Not more than 140	Not more than 200	300	R. Burra and J. K. Will, M.D.
II. Receiving Private Patients only.					
(*a*) Of both sexes:					
Camberwell, S.E. .	Camberwell House, Peckham Road .	130	290	420	Commander W. J. Casberd-Boteler, R.N., and F. H. Edwards, M.D.
Chiswick . . .	Chiswick House	18	17	35	Mrs. S. J. Tuke, T. S. Tuke, M.B., and C. M. Tuke, M.R.C.S.
Clapton, Upper, N.E.	Brooke House	38	42	80	H. T. Monro and J. O. Adams, M.D.
Finsbury Park, N. .	Northumberland House . . .	37	58	95	A. H. Stocker, M.D., A. H. Stocker, and F. R. King, M.R.C.S.
Hayes, Uxbridge .	Hayes Park	—	—	†19	J. W. Higginson, M.R.C.S., and R. J. Stilwell, M.R.C.S.
Hillingdon, Uxbridge	Moorcroft House (and Laurel Lodge)	—	—	*48	R. J. Stilwell, M.R.C.S., J. F. Stilwell, and R. H. Cole, M.D.
Isleworth . .	Wyke House	25	20	45	H. M. Bullock, M.R.C.S., and F. Murchison, M.B.
Peckham, S.E. . .	Peckham House	105	255	360	A. H. Stocker, M.D., A. H. Stocker, and H. C. Halsted, M.D.
Roehampton, S.W. .	The Priory	45	45	90	S. G. Turner, L. Karslake, Major D. E. Wood, and J. Chambers, M.D.
Sunbury . . .	Halliford House	15	15	30	H. O. S. Ellis, H. Dickinson, and W. J. H. Haslett, M.R.C.S.

METROPOLITAN LICENSED HOUSES (*continued*).

[*q*. Limited to quiet and harmless cases.]

Houses.		Number of Patients for which Licensed			To Whom Licensed.
		M. Not more than	F. Not more than	T.	
II. Receiving Private Patients only (*contd.*).					
(*b*) Males only:					
South End, Catford, S.E.	Flower House	32	—	32	C. A. Mercier, M.B.
Tooting Common, S.W.	Newlands House, Tooting Bec Road.	28	—	28	A. H. Sutherland, Mrs. C. M. A. Sutherland, and H. J. Hind, M.R.C.S.
(*c*) Females only:					
Clapham Park, S.W. *q*.	Clarence Lodge, Clarence Road	—	12	12	Miss F. E. M. Leech.
Finchley, East	The Grange	—	8	8	F. Watson, M.B., and Mrs. J. E. Watson.
Hayes, Uxbridge.	Wood End House.	—	19	19	R. J. Stilwell, M.R.C.S., and Miss M. G. Thomson.
Hendon, N.W.	Hendon Grove	—	14	14	Mrs. M. Hicks, F. W. Edridge-Green, M.D., Kuethell W. Green, and Mrs. A. E. Green.
Kensington, West, W.	Otto House, 47, North End Road	—	35	35	A. H. Sutherland, Mrs. C. M. A. Sutherland, and Mrs. E. Chapman.
Southall	Featherstone Hall	—	10	10	W. H. Bailey, M.D.
,, *q*.	Vine Cottage, Norwood Green	—	14	14	H. C. Titterton, M.R.C.S.
Streatham Hill, S.W.	Fenstanton, Christchurch Road	—	30	30	J. R. Hill, L.R.C.P., and Miss C. E. Hill.
III. Receiving Idiots, &c.					
Of both Sexes:					
Hampton Wick	‡Normansfield	—	—	‖160	R. L. Langdon-Down, M.B., and P. L. Langdon-Down, M.B.

* Not more than 8 at any one time to be of the female sex.
† Not more than 2 at any one time to be of the male sex.
‡ Registered under "The Idiots Act, 1886."
‖ The number of either sex at any one time not to exceed 120.

PROVINCIAL LICENSED HOUSES.

[*p.* Houses receiving Paupers ; *m.* Males only ; *f.* Females only ; *q.* limited to quiet and harmless cases.]

County.	Houses.	To whom Licensed.	Number of Patients for which Licensed.			Clerks to Visitors.	Medical Visitors.
			M.	F.	T.		
Beds [Bedford Borough] *f.*	Bishopstone House, Bedford.	M. T. Archdall, L.R.C.P., and Mrs. Archdall.	—	10	10	Mark Whyley, Bedford.	C. E. Prior, M.D.
			Not more than				
Beds . .	Springfield House, Bedford.	David Bower, M.D., Miss M. L. Bower, W. S. Bower, and Miss Mary Bellars.	22	30	48	W. W. Marks, ditto	E. C. Sharpin, M.R.C.S.
Derby . .	Wye House, Buxton.	F. K. Dickson, F.R.C.P. Ed.	22	22	44	J. B. Boycott, Chapel-en-le-Frith.	A. Shipton, F.R.C.S.
Devon . *f.*	Court Hall, Kenton, Exeter.	Miss B. M. Mules and Miss A. S. Mules.	—	8	8	Jas. Beal, Exeter .	M. Farrant, M.R.C.S.
,, . .	Plympton House, Plympton.	C. Aldridge, M.D., Miss A. Aldridge, Alfred Turner, M.D., and Mrs. F. M. Turner.	18	26	44	R. B. Johns, Plymouth.	R. H. Clay, M.D.
Durham . *q.*	Dinsdale Park, Darlington.	H. W. Kershaw, M.R.C.S., and Miss Amelia Cox.	22	22	44	G. N. Watson, Darlington.	Sir G. H. Philipson, M.D.
,, . .	Middleton Hall, Middleton St. George.	R. H. O. Garbutt, Robert Smith, M.D., and L. Harris-Liston, M.D.	35	30	65	G. N. Watson, Darlington.	
Essex . .	Witham . . .	F. C. Payne, L.R.C.P. .	—	—	25*	W. B. Blood, Witham.	E. A. Hunt, M.R.C.S.
Gloucester .	Northwoods, Winterbourne, Bristol.	R. Eager, M.D., and W. Eager, L.R.C.P.	25	25	50	J. H. Latcham, Stokescroft, Bristol.	J. Beddoe, M.D., and J. Edward Shaw, M.B.

* Not to exceed 15 males or 12 females.

PROVINCIAL LICENSED HOUSES (*continued*).

[*p.* Houses receiving Paupers ; *m.* Males only ; *f.* Females only ; *q.* limited to quiet and harmless cases.]

County.	Houses.	To Whom Licensed.	Number of Patients for which Licensed.			Clerks to Visitors.	Medical Visitors.
			M.	F.	T.		
Gloucester .	Fairford House, Fairford.	A. C. King Turner, M.B.	25	25	50	Robert Ellett, Cirencester.	W. R. Cossham, M.D.
Hants . .	Westbrooke House, Alton.	Mrs. E. E. Warrilow, and J. F. Briscoe, M.R.C.S.	10	20	30	H. Barber, The Castle, Winchester.	E. J. L. Leslie, L.R.C.P. Ed.
,, . *f.*	The Briars, Sandown, Isle of Wight.	Mrs. Steward and Miss Sarah E. Griffiths.	—	5	5	H. Barber, The Castle, Winchester.	A. Hollis, M.D.
Kent . .	Redlands, Hadlow, Tonbridge.	Mrs. Harmer and W. A. Harmer, L.S.A.	20	10	30	J. Brennan, West Malling.	T. Joyce, M.D.
,, . *f.*	Riverhead House, Sevenoaks.	W. H. C. Macartney, L.R.C.P. I., and Mrs. M. L. Macartney.	—	8	8	J. Brennan, West Malling.	,, ,,
,, . .	West Malling Place, West Malling, Kent.	James Adam, M.D., and Mrs. Adam.	18	21	39	J. Brennan, West Malling.	,, ,,
Lancaster .	Marsden Hall, Nelson.	R. C. Haworth, Miss E. Diack, and Mrs. F. E. Moor.	15	13	28	W. J. Dickson, Kirkham.	D. T. Smith, M.B.
,, *f.*	Overdale, Outwood, Whitefield, Manchester.	Robert C. Haworth, Miss E. Diack, Miss E. B. Rowlinson.	—	14	14	John Crofton, Manchester.	A. Boutflower, M.R.C.S.
,, .	Haydock Lodge, Ashton, Newton-le-Willows.	C. T. Street, L.R.C.P., and Mrs. Mabel R. Street.	65	85	150	H. Hatton, Warrington.	H. Langdale, M.D.
,, [Liverpool City].	Tue Brook Villa, Liverpool.	George Duffus, M.B., and John A. Cooke, L.R.C.P.	26	26	52	R. S. Cleaver, Heymans Green, West Derby, Liverpool.	J. Barr, M.D.

PROVINCIAL LICENSED HOUSES (*continued*).

[*p.* Houses receiving Paupers; *m.* Males only; *f.* Females only; *q.* limited to quiet and harmless cases.]

County.	Houses.	To Whom Licensed.	Number of Patients for which Licensed.			Clerks to Visitors.	Medical Visitors.
			M.	F.	T.		
Lancaster .	Shaftesbury House, Formby, Liverpool.	Stanley A. Gill, M.D., and Mrs. F. W. Gill.	20	20	40	G. H. Eaton, Liverpool.	T. R. Glynn, M.D.
Norfolk [Norwich City].	Heigham Hall, Norwich.	J. G. Gordon-Munn, M.D.	40	55	95	W. R. Cooper, Norwich.	H. C. Nance, F.R.C.S.
Norfolk *f.*	The Grove, Old Catton, Norwich.	C. A. P. Osburne, F.R.C.S. Ed., Mrs. Osburne, Miss F. R. McLintock, and Miss M. H. McLintock.	—	21	21	W. E. Ripley, Norwich.	H. W. Crosse, M.B.
Shropshire *m.*	Stretton House, Church Stretton.	C. W. C. Hyslop, Mrs. E. C. Hyslop, Horatio Barnett, M.B., and Mrs. M. E. Barnett.	40	—	40	W. Baxter, Shirehall, Shrewsbury.	W. H. Packer, M.D.
,, *f.*	Grove House, All Stretton.	Miss M. H. McLintock, Miss F. R. McLintock, and J. McLintock, L.R.C.P.	—	40	40	W. Baxter, Shirehall, Shrewsbury.	,, ,,
,, *f.*	St. Mary's House, Whitchurch.	S. T. Gwynn, M.D., and C. H. Gwynn, M.D.	—	6	6	W. Baxter, Shirehall, Shrewsbury.	,, ,,
,, .	Boreatton Park, Baschurch, near Shrewsbury.	E. H. O. Sankey, M.B., Mrs. C. Sankey, and Mrs. A. S. F. Sankey.	12	18	30	W. Baxter, Shirehall, Shrewsbury.	,, ,,
Somerset .	Brislington House, Bristol.	Mrs. A. Fox and W. B. Morton, M.D.	50	56	106	F. E. Whittuck, Keynsham, Bristol.	R. S. Smith, M.D.
,, .	Bailbrook House, Bath Easton.	L. A. Weatherly, M.D., Mrs. G. M. Weatherly, and E. W. White, M.D.	11	36	44*	Isaac Williams, Bath.	J. Edw. Shaw, M.B. and F. S. Cowan, M.R.C.S.

* The total number not to exceed 44.

PROVINCIAL LICENSED HOUSES (*continued*).

[*p.* Houses receiving Paupers; *m.* Males only; *f.* Females only; *q.* limited to quiet and harmless cases.]

County.	Houses.	To Whom Licensed.	Number of Patients for which Licensed.			Clerks to Visitors.	Medical Visitors.
			M.	F.	T.		
Stafford . .	Ashwood House, Kingswinford, Dudley.	H. G. Peacock, L.R.C.P. Ed., and J. F. G. Pietersen, L.R.C.P. Ed.	11	20	31	M. F. Blakiston, Stafford.	C. Reid, M.B.
,, . *f.*	Moat House, Tamworth.	Edward Hollins . .	—	16	16	M. F. Blakiston, Stafford.	,, ,,
Surrey . *f.*	Church Street, Epsom.	Miss M. O. Daniel . .	—	14	14	T. W. Weeding, County Hall, Kingston-on-T.	J. E. Barton, M.R.C.S.
,, . *q.f.*	Chalk Pit House, Sutton.	F. D. Atkins, M.R.C.S., and Mrs. C. F. Atkins.	—	3	3	T. W. Weeding, County Hall, Kingston-on-T.	,, ,,
Sussex . .	Ticehurst House .	H. F. H. Newington, M.R.C.P. Ed., and A. S. L. Newington, M.B.	47	45	92	F. Merrifield, County Hall, Lewes.	F. Fawssett, M.B.
,, . *f.*	St. George's Retreat, Burgess Hill.	Miss McNeru, etc. . .	—	75	75	F. Merrifield, County Hall, Lewes.	,, ,,
,, . *f.*	Periteau House, Winchelsea, Rye, S.O.	Mrs. Skinner . . .	—	5	5	F. Merrifield, County Hall, Lewes.	,, ,,
,, [Hastings Borough] *q.f.*	Ashbrooke Hall, Hollington.	Mrs. Hitch and Miss E. G. Adams.	—	6	6	F. G. Langham, 44a, Robertson Street, Hastings.	A. R. Ticehurst, M.R.C.S., and C. H. Allfrey, M.D.
Warwick .	Glendossill, and Hurst House, Henley-in-Arden.	S. H. Agar, M.R.C.S., John J. Agar, and Miss M. H. Agar.	20	28	48	E. Field, Leamington Priors.	T. W. Thursfield, M.D.

PROVINCIAL LICENSED HOUSES (*continued*).

[*p*. Houses receiving Paupers; *m*. Males only; *f*. Females only; *q*. limited to quiet and harmless cases.]

County.	Houses.	To Whom Licensed.	Number of Patients for which Licensed.			Clerks to Visitors.	Medical Visitors.
			M.	F.	T.		
Wilts [New Sarum City] *p.*	Fisherton House, Salisbury.	J. L. Baskin, L.R.C.P. Ed.	278	394	672	A. C. Jonas, Salisbury.	H. P. Blackmore, M.D. and H. Coates, M.R.C.S.
Wilts . .	Laverstock House, Salisbury.	H. J. Manning, M.R.C.S. .	35	35	70	R. W. Merriman, Marlborough.	C. R. Straton F.R.C.S. Ed.
,, . .	Fiddington House, Market Lavington, Devizes.	Major J. M. T. Reilly, Mrs. Reilly, and J. S. Lush, M.R.C.S.	14 to 16	16 to 14	30	R. W. Merriman, Marlborough.	G. S. A. Waylen, M.R.C.S.
,, . .	Kingsdown House, Box.	H. C. MacBryan, L.R.C.P. Ed.	6 to 13	37 to 30	43	R. W. Merriman, Marlborough.	W. T. Briscoe, M.D.
York, W.R. *q.f.*	Greta Bank, Burton-in-Lonsdale, Kirkby Lonsdale.	Mrs. Mary A. Taylor and Robert C. Haworth and C. T. Street, L.R.C.P.	—	10	10	W. F. L. Horne, Wakefield.	F. H. Wood, L.R.C.P. and W. H. Stott, L.R.C.P.
,, ,, [Rotherham Borough] *f.*	Thundercliffe Grange, Kimberworth, Rotherham.	W. C. S. Clapham, M.D. Brussels, M.R.C.P. Ed., and G. E. Mould, M.R.C.S., L.R.C.P.	—	20	20	W. J. Board, Rotherham.	A. Robinson, M.D.
York, City *f.*	The Pleasaunce, Heworth, York.	G. I. Swanson, M.D.	—	22	22	F. J. Munby, York.	R. Turner, M.B.
Idiot Establishment:							
Somerset *f.*	*Downside Lodge, Chilcompton, Bath.	Miss C. I. Page . .	—	7	7	F. E. Whittuck, Keynsham, Bristol.	F. S. Cowan, M.R.C.S., R. S. Smith, M.D., and J. Edward Shaw, M.B.

* Registered under "The Idiots Act, 1886."

INSTITUTIONS INTO WHICH PRIVATE PATIENTS ARE RECEIVED.

County.	Hospitals, etc.	Rates of Board, etc.
Cheshire .	Manchester Royal Lunatic Hospital	From 3 to 6 guineas; Middle classes, £1 11s. 6d. to £2 2s.
Devon . .	Wonford House, Exeter . . .	£2 7s. and upwards. Lower rates fixed by committee.
Gloucester .	Barnwood House Institution, Gloucester.	Patients to contribute according to accommodation required.
Lincoln .	The Lawn, Lincoln	30s. weekly and upwards (does not include washing, wine).
Middlesex .	St. Luke's Hospital for Lunatics, Old Street, E.C.	Payments arranged by committee.
Norfolk . .	Bethel Hospital, Norwich . .	20s. weekly includes everything except clothing.
Northampton	St. Andrew's Hospital for Mental Diseases, Billing Road, Northampton.	First class, £2 2s. to £3 3s.; second class, £1 5s. to £2 2s. Reduced if friends can satisfy committee that so much cannot be afforded.
Nottingham .	The "Coppice," Nottingham . .	£2 per week, and extra for special attendance. Necessitous cases received at 30s., including everything except clothing.
Oxford . .	Warneford Lunatic Asylum, Oxford.	2 guineas a week. Committee have power to increase or reduce at their discretion.
Stafford . .	The Lunatic Hospital, Coton Hill, near Stafford.	Payment of first-class patients fixed by House Committee; second class, preference given to patients connected by birth, residence, or otherwise, with the county.
Surrey . .	Holloway Sanatorium, St. Ann's Heath, Virginia Water.	Founded by Mr. Holloway. Self-supporting. Patients received from £1 10s., and may, if suitable, be retained at reduced rates.

INSTITUTIONS INTO WHICH PRIVATE PATIENTS ARE RECEIVED (*continued*).

County.	Hospitals, etc.	Rates of Board, etc.
Surrey . .	Bethlem Royal Hospital . .	All poor lunatics of the educated classes presumed to be curable are eligible for admission. A limited number of male patients are received on payment of 2 guineas per week.
York . .	York Lunatic Hospital, York .	Payments on account of patients left to the discretion of the House Committee.
,, . .	The Retreat, York	Terms to be regulated by the patient's pecuniary circumstances.
	Idiot	Establishments.
Devon . .	Western Counties Idiot Asylum, Starcross.	
Essex . .	Eastern Counties Asylum for Idiots, Colchester.	Ordinary charge, £60 per annum. Cases for admission are also voted for by subscribers.
Lancaster .	Royal Albert Asylum, Lancaster .	The full payment is 50 guineas, friends paying 10 guineas for clothing (per annum). Second class to pay 100 guineas; special arrangements as to clothing. Private patients to pay 200 guineas per annum. First class, 150 guineas per annum; special arrangements as to clothing.
Somerset .	Magdalen Hospital School, Coombe Down, Bath.	
Surrey . .	Asylum for Idiots, Earlswood, Red Hill.	From 50 to 200 guineas, and by votes of subscribers.
Warwick .	Midland Counties Idiot Asylum, Knowle, Birmingham.	

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